TEXTILE BULLETIN

VOL. 59 SEPTEMBER 15, 1940 NO. 2

It took much more than skilled labor, modern equipment and finest quality materials to make Dayco Tempered Roll Coverings the new standard of the industry. It took Dayton's 25 years' experience in technical research development, testing and production—it took more than a year's extensive use in leading textile mills, *and it took the cooperation of mill superintendents and technicians.* So here's orchids and a great big bow to the textile mill executives who helped make Dayco Roll Coverings the one standard of year-round efficiency by which all others must be judged.

These all-season Dayco Roll Coverings take temperature changes or extremes in stride without flattening—distortion or grooving. There are no ends down jitters and no production loss with Daycos. Daycos' unvarying properties assure instantaneous start-up and production after winter week-end shut-downs. Day in and day out, the overwhelming advantages of the all-season Daycos keep your efficiency up and your costs down.

THE DAYTON RUBBER MFG. CO.
TEXTILE PRODUCTS DIVISION, Dayton, Ohio
The Originators and Pioneers of Dayco Tempered Roll Coverings

GREENVILLE SALES OFFICE
Woodside Building, Greenville, S. C.

ONLY DAYCOS HAVE THESE 11 OVERWHELMING ADVANTAGES

1. Improved drafting.
2. No grooving—less ends down.
3. Not affected by temperature changes.
4. Lower net roll costs.
5. Long service life.
6. Easy to apply.
7. Proper cushioning.
8. Unaffected by hard ends.
9. Static free.
10. Oil resisting.
11. One piece tubular construction.

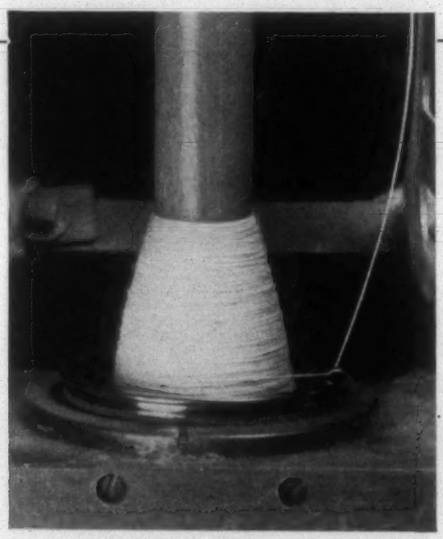
Dayton
***Thorobred* TEXTILE PRODUCTS**
Dayco TEMPERED ROLL COVERINGS–LOOM SUPPLIES
Made by the World's Largest Manufacturer of V-Belts

Published Semi-Monthly by Clark Publishing Company, 218 West Morehead Street, Charlotte, N. C. Subscription $1.50 per year in advance. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1837.

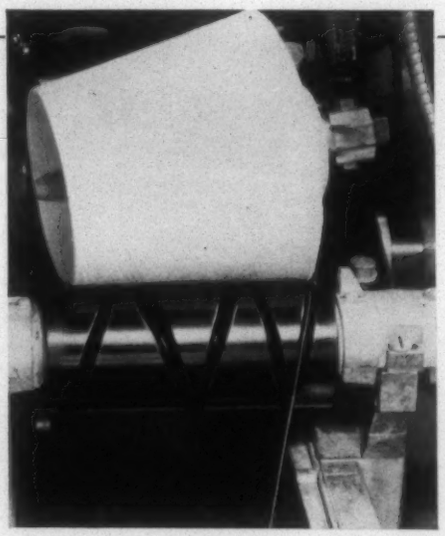
ROTATING TRAVERSE guides Spun Rayon Yarns without chafing

Yarn which travels in one direction when spun (A below), will travel in the opposite direction on the winder. In passing through the thread guide of a reciprocating-guide winder, the fibres will be roughed. This weakening of the yarn will not occur on the rotating traverse winder.

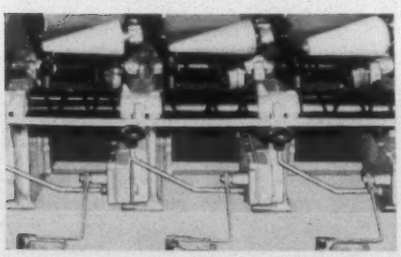
On the Roto-Coner*, the revolving motion of the Rotating Traverse (B below) is in the same direction the yarn is traveling, which is particularly advantageous for spun rayon yarns. The stroboscopic pictures at right illustrate how the yarn, traveling at 500 yards per minute, is gently guided onto the package by the grooves in the roll.



A. Yarn traveling *down* to spinning bobbin



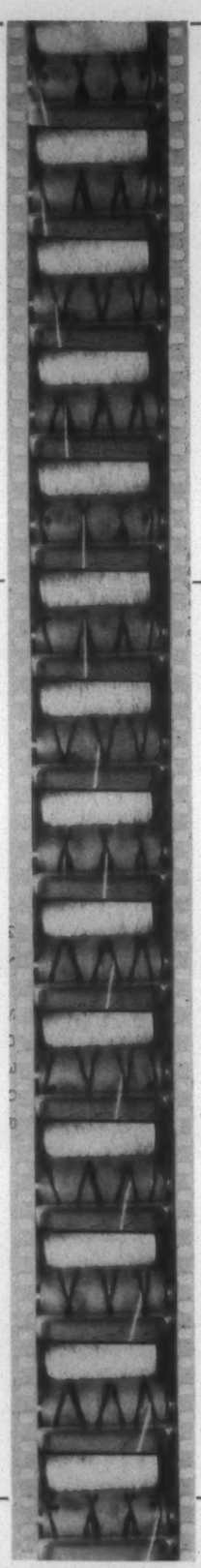
B. Yarn traveling *up* to winding package



Exceptional ease of cleaning—due to the streamlined design—makes the Roto-Coner* ideal for producing open-wind cones of spun rayon yarn. There are few surfaces where lint can accumulate—so cleaning with a hand brush is only a matter of a few seconds. This is especially important when handling both viscose and acetate yarns.

The pictures in the strip at right were taken by a stroboscopic camera geared to the Rotating Traverse and photographing 25,000 pictures per minute.

*Trademark



ROTO-CONER

LEESONA

Reg. U. S. Pat. Off.

THE ROTATING TRAVERSE WINDER

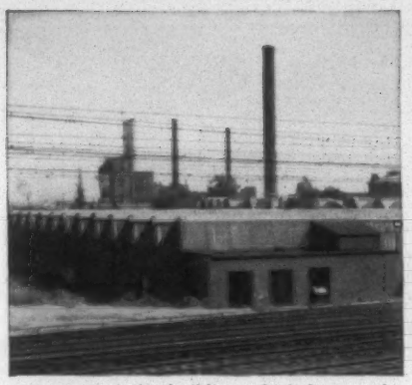
UNIVERSAL WINDING COMPANY P. O. BOX 1605 PROVIDENCE, R. I.

BOSTON PHILADELPHIA UTICA CHARLOTTE ATLANTA

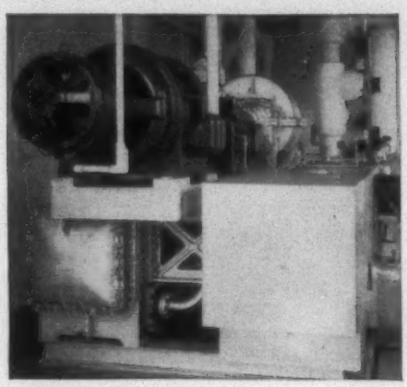
Meeting Your Problems

...BEFORE THEY ARISE

CROWN TESTED AND APPROVED CROWN RAYON

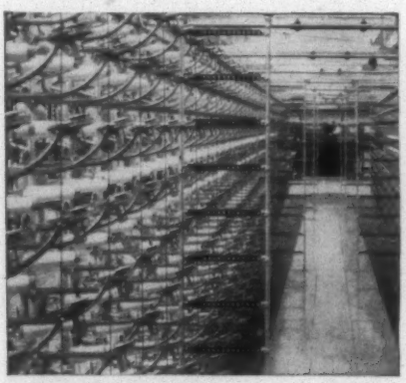


EXTERIOR of the building which houses the new Textile Unit of the American Viscose Corporation.

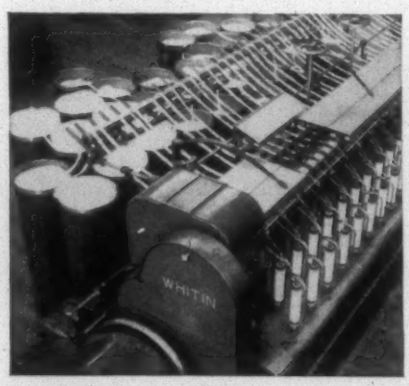


THIS VIEW shows part of the air conditioning equipment. The Unit is completely humidified.

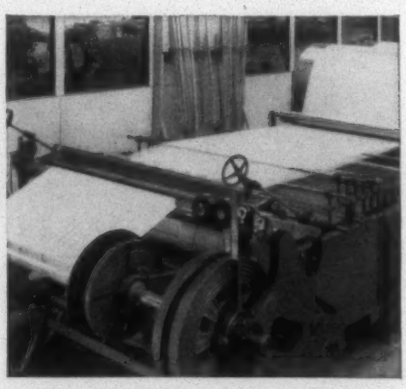
ONE OF THE single-unit Wildman full-fashioned hosiery knitting machines, set up in the Textile Unit.



IN THE TEXTILE UNIT are the most modern types of mill machinery—such as this 1000-end Sipp Eastwood magazine creel.



PHOTOGRAPH of a Whitin super-draft slubber running on Fibro. Exact conditions of the average mill operation are closely approximated.



A SEVEN-CAN high speed Johnson slasher in use in the American Viscose Corporation's new Textile Unit.

A mill operator today is almost ceaselessly engaged in coping with the problems immediately surrounding him.

Like the captain of a ship, he is too busy at the helm to run up to the crow's nest and take a look around the horizon. He must depend on someone else to do that for him.

Following its policy of pioneering in the rayon industry, the American Viscose Corporation takes this occasion to announce the establishment of just such a "crow's nest"... a new Textile Unit, now in operation at Marcus Hook, Pa., in connection with our plants and laboratories there.

In this Textile Unit, self-contained in its own building and comprising 60,000 square feet of floor space, all mill conditions common to the manufacture of rayon products *are closely approximated*. Day after day, in actual working conditions, problems which arise to confront you, arise here.

And as soon as they arise, the vast resources of the American Viscose Corporation are mobilized to find a way to solve them ... to find the cheapest and most efficacious way to overcome them ... to find a way which *you* can make use of in your own mill.

Not only is this Textile Unit concerned with the solution of everyday problems—it is also concerned with discovery, with the finding of new and better ways of doing things, with the uncovering of new avenues for profit for the whole industry.

The Unit is at present engaged in activities relating to the development of new fabrics, the solution of many dyeing and finishing problems, and the maintenance of quality in construction.

We hope you will consider this a cordial invitation to see and inspect this "crow's nest" of the rayon industry.

AMERICAN VISCOSE CORPORATION *Lustre-Fibres, Ltd.*, SELLING AGENTS • *350 Fifth Avenue, New York City*
THE WORLD'S LARGEST PRODUCER OF RAYON YARN

THE FIRST NAME IN RAYON . . . THE FIRST IN TESTED QUALITY

IT'S STEADY SAVING THAT COUNTS!

Temporary savings may sometimes be gained by "economy" buying of chemicals, but they are not to be compared with the steady savings that mount up when you are given fast, complete and economical service from a company of proven reliability. More and more manufacturers are realizing how Cyanamid's large scale, modernized resources—up-to-date laboratory facilities, highly trained technical staff, well stocked and conveniently situated warehouses—mean greater profits in *regular* savings. Let Cyanamid help you economize with top notch service on—

From a large collection of old-fashioned mechanical savings banks comes this amusing contraption for saving money, called "I ALWAYS DID 'SPISE A MULE."

SIZING COMPOUNDS

SOFTENERS

PENETRANTS

SULPHONATED OILS

DECERESOL* WETTING AGENTS

*Registered U. S. Patent Office

AMERICAN CYANAMID & CHEMICAL CORPORATION

30 ROCKEFELLER PLAZA · NEW YORK, N. Y.

District Offices: 822 West Morehead Street, Charlotte, N. C.; 89 Broad Street, Boston, Mass.; 600 So. Delaware Avenue corner South Street, Philadelphia, Pa.

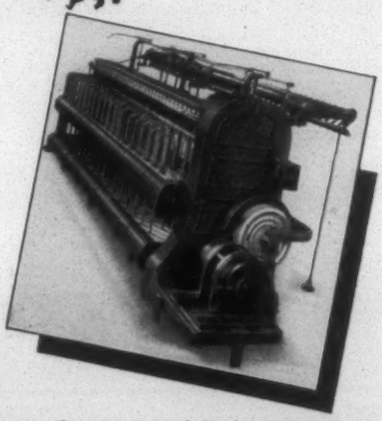
Preparedness
BEGINS WITH INDUSTRY

ADEQUATE national preparedness begins with industry, for manpower is helpless without the equipment that industry supplies.

The H & B High-Draft Roving System is one way for the textile industry to promote preparedness quickly and with a relatively small investment. This system is so simple it can be easily applied to any standard make of existing frame without serious interruption of production. It will take drawing frame sliver and draft up to 35 to produce up to 6 hank roving in ONE OPERATION. To produce finer roving this system's product goes to jacks or fly frames of the conventional type.

The heart of the System is our Patented Scroll Condenser. Made of Bakelite to eliminate static, this condenser gives the sliver a half turn of twist between the two drafting zones, thus folding in the flank fibres, which otherwise become detached. This twisting principle is exclusive with the H & B system and makes an important contribution to the strength and regularity of the yarn.

For MAXIMUM efficiency use the H & B High-Draft Roving System on our new Roving Frame having 12 major improvements, but even on existing frames of any standard make, the System soon pays for itself.



★ Our New High-Draft Roving Frame with 12 Major Improvements

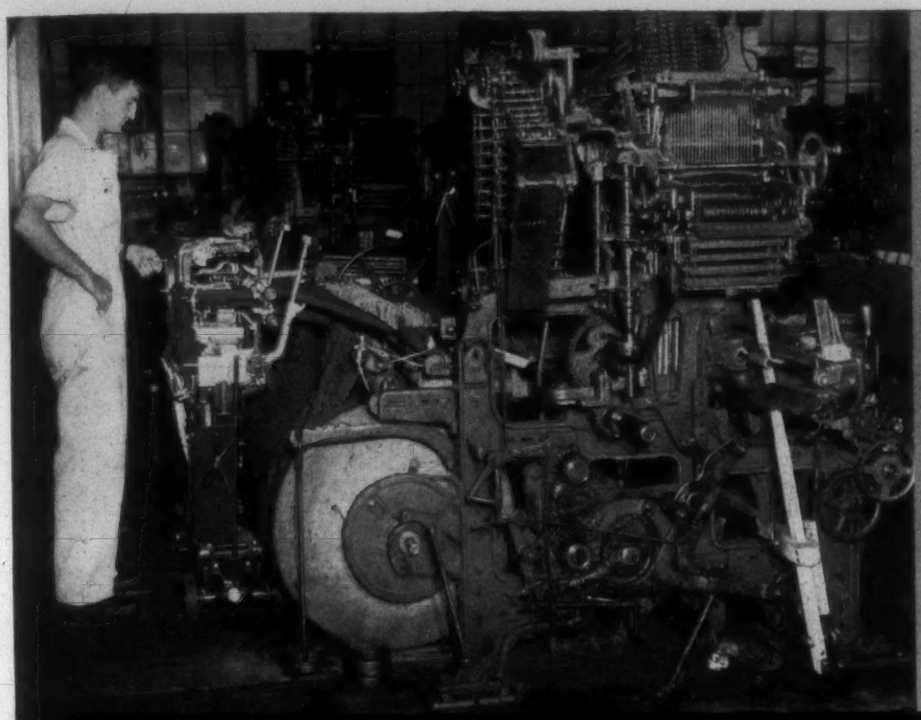
H&B AMERICAN MACHINE COMPANY

Textile Mill Machinery

PLANT AT PAWTUCKET, RHODE ISLAND

BOSTON OFFICE: 161 Devonshire St.; ATLANTA OFFICE: 815 Citizens & Southern National Bank Bldg.; CHARLOTTE OFFICE: 1201-3 Johnston Building

EXPORT DEPARTMENT: United States Machinery Co. 115 Broad St., New York, N. Y.



BARBER-COLMAN

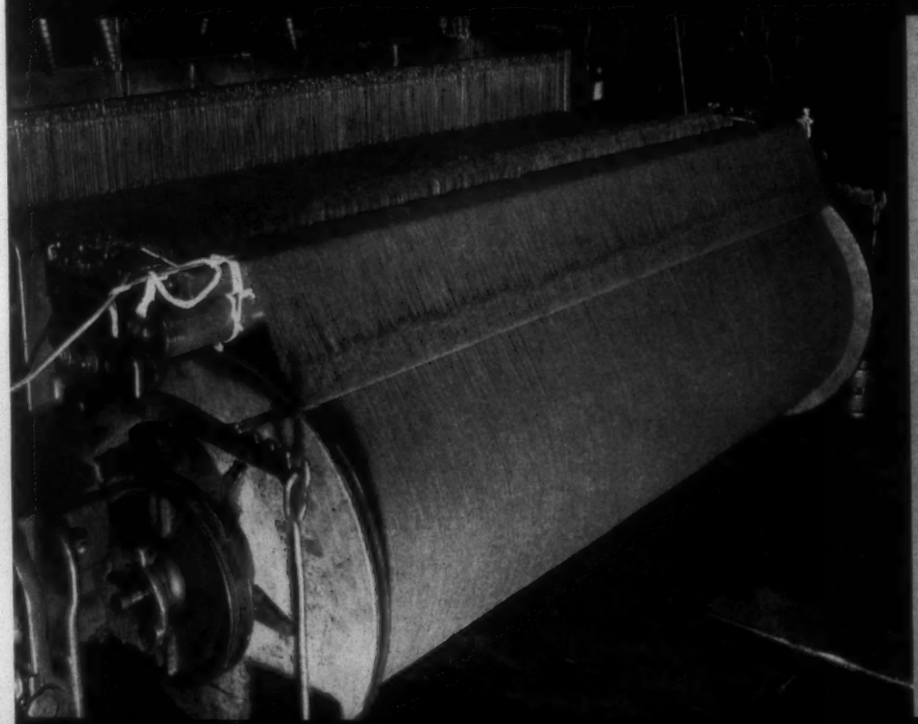
Portable

WARP TYING MACHINE

MODEL "LS"

TYING-IN WOOLEN WARPS... AT THE LOOM!

LOW COST WARP REPLENISHMENT - HIGHEST QUALITY RESULTS

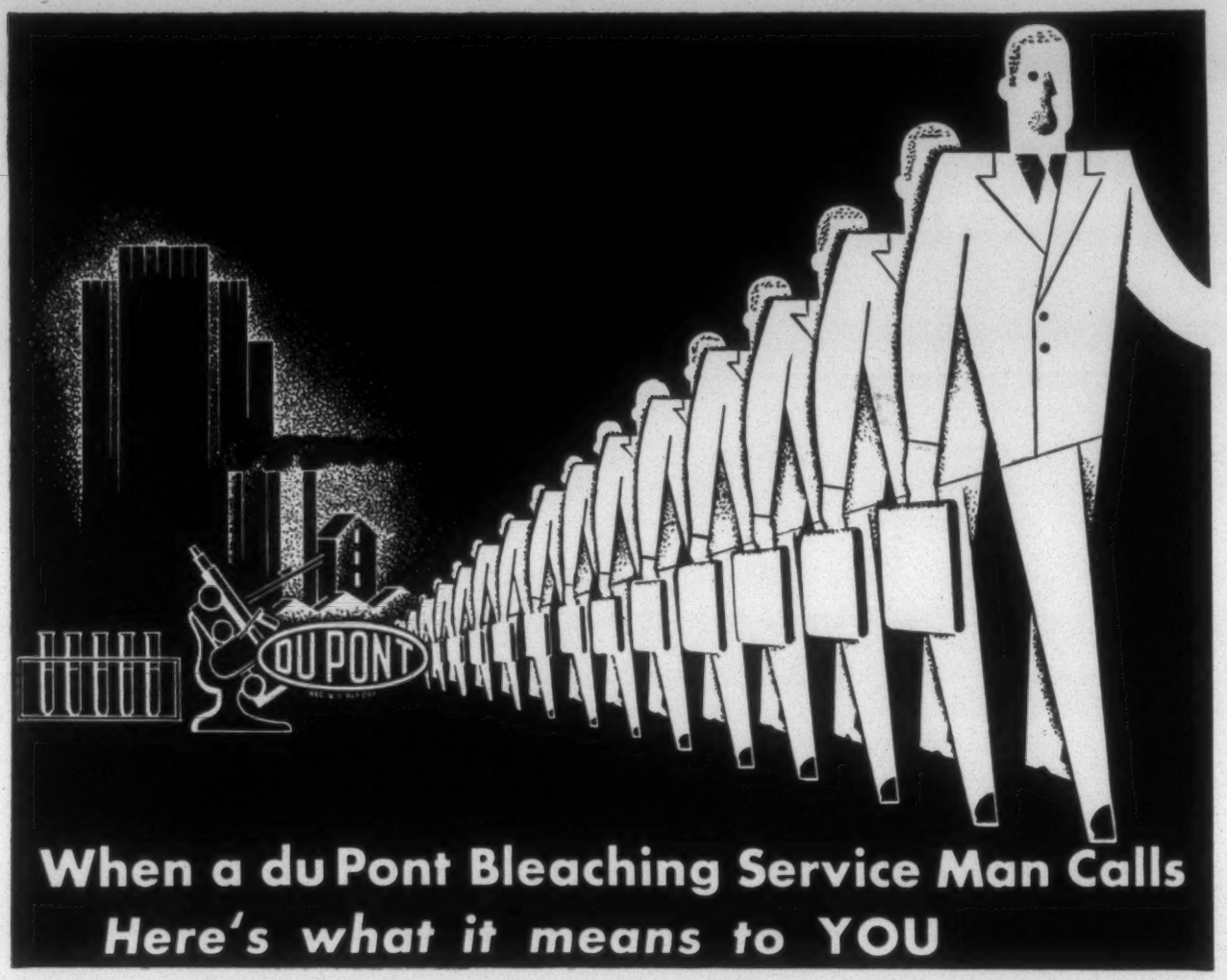


Above, operator using Model "LS" machine equipped with new tying mechanism for woolen yarns. Left, woolen warp completely tied-in at the loom. These pictures were made in a prominent mill which manufactures automobile upholstery fabrics and blankets.

BARBER-COLMAN COMPANY

ROCKFORD, ILLINOIS, U. S. A.

FRAMINGHAM, MASS., U. S. A. • GREENVILLE, S. C., U. S. A. • MANCHESTER, ENGLAND • MUNICH, GERMANY



When a du Pont Bleaching Service Man Calls

Here's what it means to YOU

DU PONT
REG. U. S. PAT. OFF.

PEROXIDES

ALBONE*
Du Pont Hydrogen Peroxide
100 vol. Electrolytic

DFF† SOLOZONE*
(Du Pont Sodium Peroxide, dustless and free flowing)

SODIUM PERBORATE

*Reg. U. S. Pat. Off.
†Trade Mark

HE COMES as a counselor and friend—a man who can be of assistance in the selection of the right peroxides and bleaching processes.

He is familiar with bleaching problems, knows the importance of holding down production costs. He offers you the benefits of his own personal experience backed by the knowledge of a group of trained specialists—research men and engineers—who have been working with peroxides and peroxide bleaching problems for years.

He brings into your plant up-to-the-minute facts from modern laboratory research plus the useful experience which du Pont has acquired in almost 50 years of service to the textile processing industry.

Visit the du Pont Wonder World of Chemistry Exhibits at the New York World's Fair and on the Boardwalk at Atlantic City

DU PONT
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The R. & H. Chemicals Department
E. I. DU PONT DE NEMOURS & COMPANY (INC.)
Wilmington, Delaware

District Sales Offices: Baltimore, Boston, Charlotte, Chicago, Cleveland, Kansas City, Newark, New York, Philadelphia, Pittsburgh, San Francisco

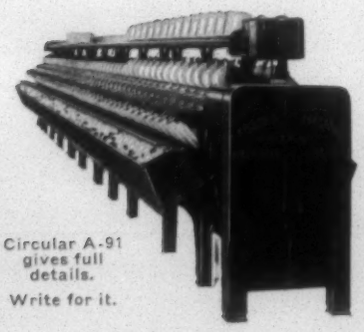
Foster Model 102 packages help sell yarns.

Knitters prefer Model 102 cones because their density and angle of wind can be controlled to suit knitting requirements.

Weavers like Model 102 cones and tubes because their uniform density permits uniform delivery in beam preparation.

This same quality also makes dyers partial to the Model 102 package.

YOU'LL like the Model 102 winder not only because it helps you sell yarn, but also because it will wind TWICE as much yarn at 1-3 LESS cost as compared with older models.



Circular A-91 gives full details.

Write for it.

FOSTER MACHINE CO., Westfield, Mass.

Southern Office:
Johnston Bldg., Charlotte, N. C.

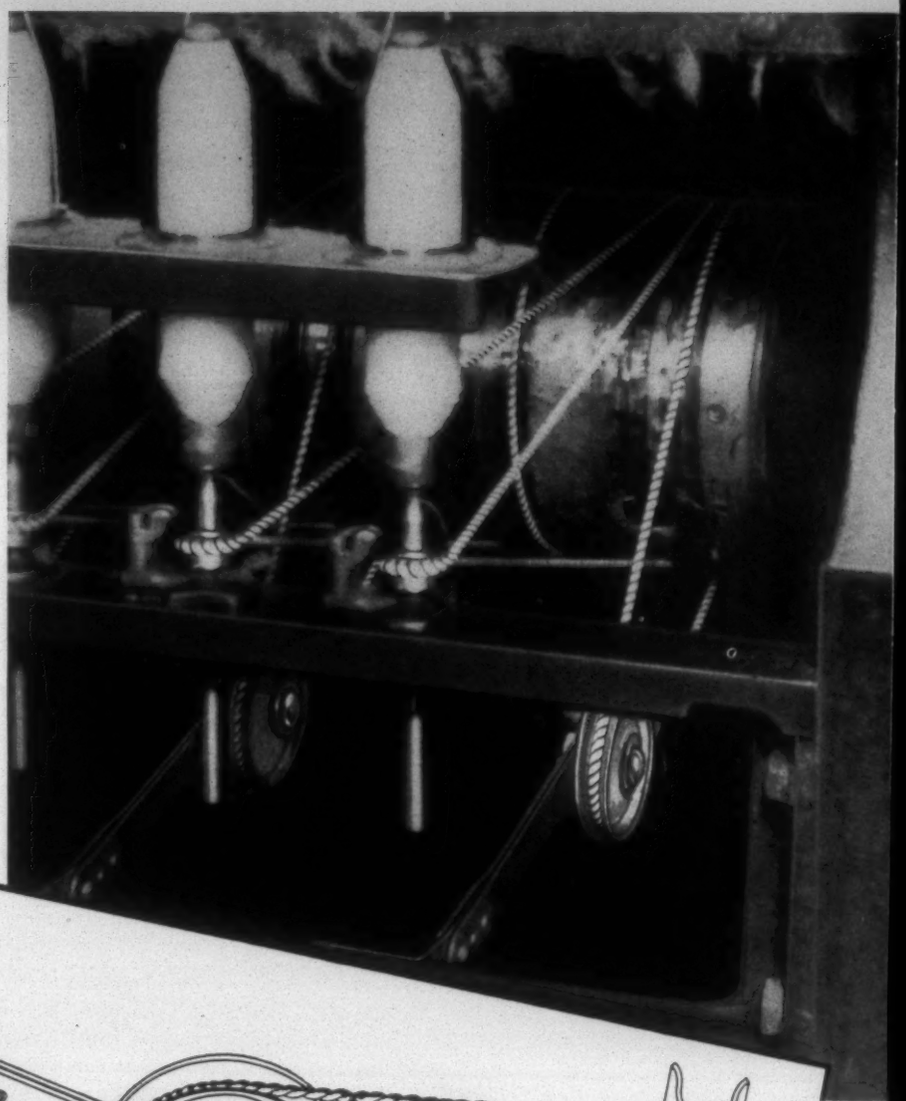
FOSTER MODEL 102

FOR WINDING COTTON, MERCERIZED, WOOLEN, WORSTED, MERINO, SPUN SILK AND SPUN RAYON YARNS

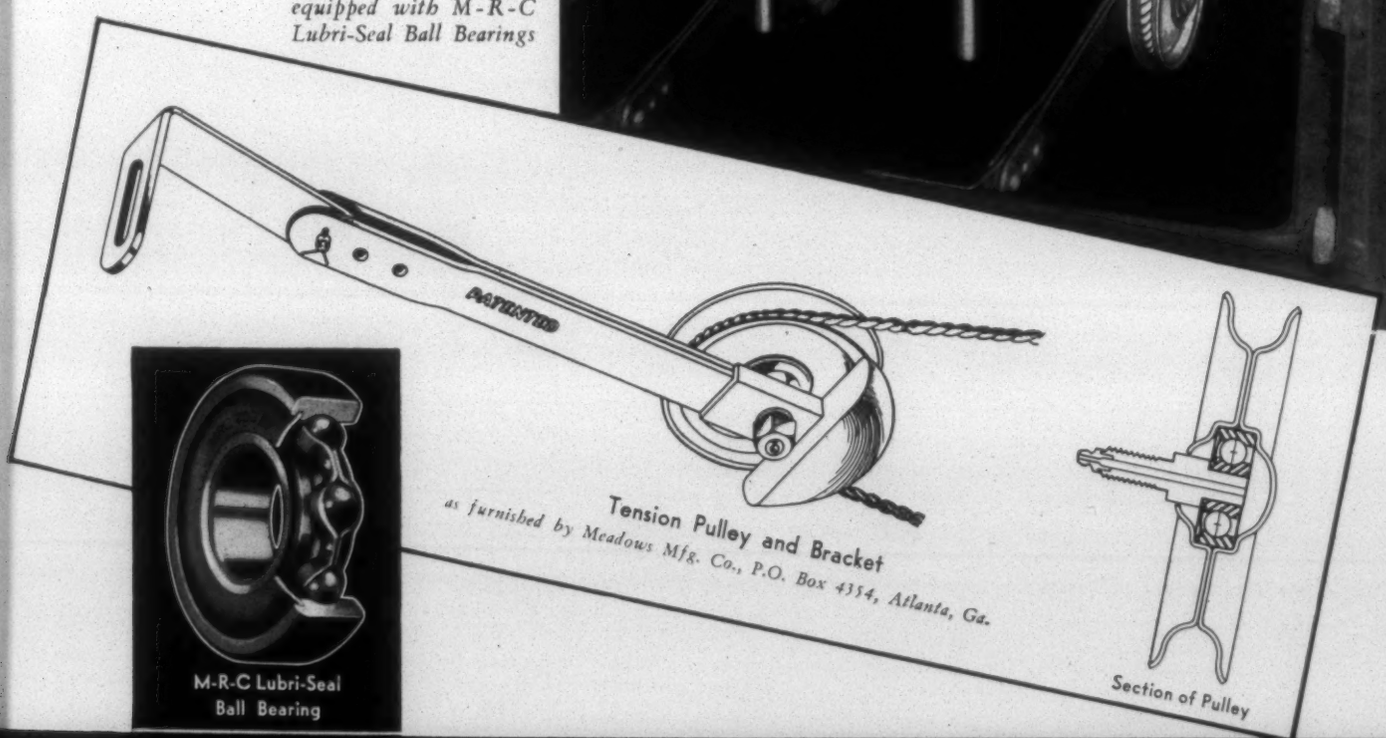
M-R-C and Meadows

M-R-C's extensive experience of over forty years in applying ball bearings to many thousands of mechanisms contributes to the successful performance of

MEADOWS
Ball Bearing Tension Pulleys



Installation of a spinning frame using MEADOWS Band Tension Pulleys equipped with M-R-C Lubri-Seal Ball Bearings



Tension Pulley and Bracket
as furnished by Meadows Mfg. Co., P.O. Box 4354, Atlanta, Ga.

M-R-C Lubri-Seal Ball Bearing

Section of Pulley

M-R-C BALL BEARINGS

GURNEY SRB STROM

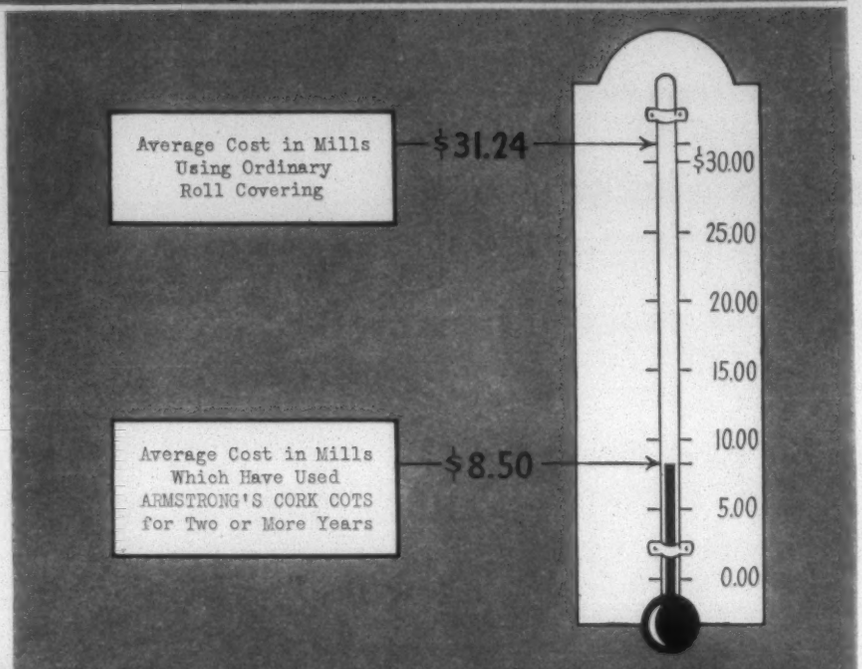
MARLIN - ROCKWELL CORPORATION

Executive Offices: JAMESTOWN, N. Y.

Factories at: JAMESTOWN, N. Y. and PLAINVILLE, CONN.

WHY MILLS TURN TO *Cork* FOR ECONOMY

HERE'S PROOF—from Mills Spinning *Medium Numbers*—of the economy of Armstrong's Cork Cots. (This advertisement is Number Three of a series showing savings of mills spinning different ranges of numbers on cork cots.)



AVERAGE SAVING $22.74

AND HERE'S A BREAKDOWN of actual roll covering costs as reported by representative mills which have been using Seamless Cork Cots for two or more years:

Mill	No. of Spindles	Numbers Spun	Cost per Million Spindle Hours of Operation	Type Frames
A	70.5M	8s - 20s	$9.89	Long Draft
B	30M	10s - 26s	9.59	Long Draft
C	15M	10s - 30s	9.25	Long Draft
D	17M	20s - 22s	5.25	Long Draft

HERE are facts in dollars and cents . . . proof of the cash savings so many mills enjoy by using Armstrong's Cork Cots.

The initial cost of these cots is no higher than that of ordinary roll coverings, and they're quicker and cheaper to assemble. Armstrong's Cork Cots are longer wearing, too; in addition, they can be rebuffed—at a cost of about ½¢ a roll per re-buffing—three or four times!

Furthermore, you can spin *better yarn* on these cots—for their higher coefficient of friction assures a stronger, more uniform product. Running of the work is also improved. You get less eyebrowing and end breakage, less clearer waste, and fewer top roll laps. From every standpoint, cork gives better service.

An Armstrong representative will be glad to show you production figures of mills spinning your range of numbers on cork cots. And he'll show you how *you* can enjoy worth while savings on roll covering costs. Armstrong Cork Company, Industrial Division, Textile Products Section, 921 Arch St., Lancaster, Pennsylvania.

ARMSTRONG'S *Extra Cushion* SEAMLESS CORK COTS

CORK PRODUCTS SINCE 1860

TEXTILE BULLETIN

Vol. 59 September 15, 1940 No. 2

200 Years of the Cotton Spinning Machine

PROBABLY A MAJORITY OF THE PERSONS WORKING IN TEXTILE MILLS AT THE PRESENT TIME ARE NOT FAMILIAR WITH THE TRANSITION OF THE COTTON SPINNING INDUSTRY FROM THE PRACTICE OF SPINNING AT HOME WITH HAND LABOR TO THE FACTORY SYSTEM, WITH ONE SPINNER TENDING A LARGE NUMBER OF SPINDLES. ERNEST BRASCHLER, OF ZURICH, SWITZERLAND, WRITING IN THE INTERNATIONAL COTTON BULLETIN, TRACES THE EVOLUTION OF THE SPINDLE FROM THE VERY BEGINNING UP TO OUR PRESENT HIGH SPEED, HIGHLY EFFICIENT SPINDLE. IT IS INTERESTING READING.

WHEN speaking of spinning in general, we have to distinguish between the preliminary cleaning, opening and fibre parallelizing operations on one hand and the proper spinning operations on the other. Today there is also a transitional process called slubbing or roving which is, by its very nature, a kind of spinning process. Yet it belongs to the preliminary spinning operations.

Spinning in a strict sense means then, three partial operations, viz.: (1) Drafting the textile material to the desired and definite fineness; (2) twisting the fibres of the drafted material together so as to form a solid strand, thread or yarn, and (3) winding the drafted and twisted material in the form of a cop or on a bobbin. If the drafting, twisting and winding processes are done at the same time, the spinning is said to be continuous, but when the winding is done separately, the process is intermittent.

The Spindle

Since immemorial times, for thousands of years, the tool for spinning has been the spindle, which is a long, slender and round piece of wood, iron or steel. At some unknown period, the spindle was provided with a small disc or wharve which facilitated the driving and which ensured a steadier movement of the spindle.

The textile material to be spun was attached to the distaff and drawn from it and drafted with the fingers of one or both hands and this in the same time as the spindle revolved and twisted. During these operations the thread was knotted round the spindle top. When a new length had been spun, the knot was opened and the spun thread was finally wound round the spindle into a self-contained process. Hence this system of spinning was intermittent.

The Hand Spinning Wheel

One of the first considerable technical improvements was the fixing of the spindle horizontally in a bearing and the driving of the spindle respectively with the aid of a cord or string from a fly-wheel turned by hand. Such wheels are still in use today in the Far East and India. In these wheels it was no more necessary to knot the thread round the spindle top during spinning; the thread was just guided in an obtuse angle towards the spindle.

The Flyer Spindle

At some unascertainable period the spinning was carried out by dividing the twisting and winding function of the spindle; the spindle was provided with a flyer fixed firmly to it and which had as its purpose the twisting of the material and at the same time to guide it tangentially to the spool. The spool which was loose on the spindle, wound the thread on to it.

As a rule it was now the spool that was driven from the flywheel, the flyer and spindle being revolved as the thread passed through the flyer. In this system the spool was driving, that is, it moved faster than the flyer or spindle; to use *termini technici*, this frame was spool or bobbin-driven.

The strain to which the yarn was subjected when pulling round the flyer spindle, was greatly reduced with the adaption of a positive drive not only for the spool or the bobbin, but also for the flyer and spindle; of course to wind up the thread, the speeds were different. This system of positive drive for the flyer spindle and the spool allowed as an alternate method the speed of the spindle and flyer to be faster than the spool or bobbin; in this case the frame is said to be flyer-lead.

The Treadle Spinning Wheel

Another very important improvement was the construction by Johann üurgen, of Wattenbüttel, near Braunschweig, who in about 1530 employed a treadle to turn the flywheel, which hitherto had been driven by hand. By

this means, both hands became free for the drafting operation and the process of spinning was much simplified and the production increased.

This improved spinning wheel from Braunschweig—or Brunswick as it was called in Low German (and English)—was introduced into England. It remained in use up to the beginning of the 18th century for spinning flax, wool, and to some small extent also, cotton. As a rule, it was a one-treadle spinning wheel. But in some cases, there were also two spindles and the spinner who was able to manage such a spinning wheel could double his production.

Yet the production was still low and slow, especially also in regard to the production of the loom and several spinners had to work to provide one weaver with yarn. This unsatisfactory condition was made worse when John Kay, a native of Bury, on the 26th May, 1733, took out his patent for the fly shuttle. By means of this invention the shuttle was moved with the aid of a picking or throwing peg and the weaver only needed now one hand to move the shuttle, the other hand actuating the sley; the weaver was able to double his production and at the same time to weave a wider cloth.

It should be mentioned here that spinning with the treadle spinning wheel as known up to 1733 was mechanical only in so far as to the twisting and winding and that the function of drawing out the textile material to the definite fineness was still done by hand. The production of the treadle wheel was dependent upon the skill with which the spinner could draft the material with his or her fingers and thus very limited in respect to speed and accuracy.

Mechanical Drafting

It was Lewis Paul, of Birmingham, England, originally a foreigner, who patented in 1738, "A New Envented Machine or Engine for the Spinning of Wool and Cotton" and which permitted the drafting of the textile material mechanically.

The implements used by Lewis Paul for drafting were pairs of rollers that revolved with increased surface speed. This invention soon relieved the process of spinning so much, that it became possible to fit one spinning frame with a dozen spindles and later as many as fifty spindles; furthermore, the new frame could be driven by horse or donkey capstan, and also by water power and the production could be increased considerably.

The spinning machine of Lewis Paul was the first step in the mechanization of the hand or treadle spinning wheel and the basis of its conversion to the factory system. The feature of a factory is the co-operation of machinery, mechanical power and capital. The first cotton mill founded by Lewis Paul and his partner John Wyatt, in Birmingham, England, in 1741 existed only a few years and its closed down entirely in 1742 or 1743. Nevertheless spinning engines with rollers to draft the material, seemed to be used in the mill of Mr. Cave, in Northampton, driven by water power and which worked from 1743 up to 1764.

First Spinning Engine

The machine of Lewis Paul, patented in 1738, is the first real spinning engine, since it employed all the important functions during spinning such as drafting, twisting and winding mechanically. Yet there were many obstacles to the quick extension of the new machine. First, the machinery was made very crudely and frequent repairs were necessary. Secondly, although even the machine produced more yarn per spindle than attained by the previous methods, the new machine needed many hands. We know that in Cave's mill in 1743 for 250 spindles, 50 workers were required, that is, when a two-shift is assumed, a 100 workers per 1,000 spindles. Thirdly, the machine in its infancy did not permit the spinning of finer counts with cotton anything higher than 15's or 20's. At that time, finer cotton yarns were imported from India where the natives produced remarkable fine counts with great skill by hand spinning wheels.

Yet, it must be repeated, the machine of Lewis Paul was the first real spinning machine. The anniversary date of this machine fitted with drawing rollers, is the 24th June, 1738, on which day Lewis Paul received a "Letters Patent" according to the system and regulations for patenting, known in England as early as 1623. The technical description, the "Specification" dates from the 20th July, 1738. The patent of Lewis Paul bears the number 562 and it is only the twenty-fifth patent for the category of spinning implements for the completed last 115 years and back to 1623. The patent was printed only in 1856; its specification is contained partially also in the "Abidgments of the Specifications of Patents relating to Spinning," published 1866 from the British patent office.

The Delivery Function of Rollers

The patent of Lewis Paul of 1738 regarding the application of pairs of rollers distinguishes between two possibilities, namely, first, the use of rollers for the regular delivery of the textile material, and, second, the employment of different pairs of rollers, placed one behind the other for thinning or drafting of the textile material to the required fineness.

Regarding the use of pairs of rollers for a more regular feed, Lewis Paul states in his patent, in the style of phraseology then usual: " . . . The wooll or cotton being thus prepared, one end of the mass, rope, thread, or sliver is put betwixt a pair of rowlers, cillinders, or cones, or some such movements, which being turned round by their motion draws in the raw mass of wooll or cotton to be spun, in proportion to the velocity given to such rowlers, cillinders, or cones. . . ." The function "draws in" of the rollers corresponds to the function of the delivery rollers of our present day drawing roller systems. The technical improvement is inasmuch remarkable, as it became possible to ensure with this system a regular feed to the spinning machine and hence a yarn of regular thickness and of even count.

This circumstance was—as compared with the conditions when spinning wool, flax or tow—especially important for the working of the relative short cotton, which at the time of Lewis Paul and in the infancy of the cotton manufacture, was purchased mainly from the Levant, Cyprus and Smyrna. Cotton was also planted at that time even in East India but cotton from that country was exported to England only about 1812. Cotton was imported from the United States about 1784, from South America, especially from Brazil, 1781, and from Egypt as late as 1823. The

(Continued on Page 38)

Erecting, Overhauling and Fixing Looms

By Frank D. Herring

Following is the sixth chapter of a series of articles on loom fixing and loom maintenance by a practical mill man. Accompanied by illustrations of all portions of a loom, this series will go into minute detail explaining the various motions and their settings, timings, repairs, etc.

Part 6

Lining the Shuttle Race Plate, the Lay End Plates, the Reed, and the Back Box Plates

FIRST tighten all the bolts securely that hold the lay to the swords. Then, using a reed square, square the lay at both ends with the swords. Check the reed very carefully to determine if it contains any bent or protruding places or dents. If so, straighten them or select a new or better reed. Check the reed bed in the lay very carefully and remove any lint waste or other objects which might prevent the reed from seating properly its full length. Put the reed in place in the reed bed. Put the reed cap, or hand rail, in place on top of the reed and tighten it securely. Check the reed its full length to determine if it is loose at any place.

Line the reed perfectly, using a long straight edge or stout twine. Remove any depressed or protruding places, then line the shuttle race plate, using a long straight edge or stout twine, removing any high or low places. Line the lay end plates with the shuttle race plate, and also line the slots in the lay end plates, or picker stick guides, to be exactly square, or at exact right angles with the reed, indicated by dotted line in Figure 20. Square the reed perfectly, using a reed square for this. Apply the back box plates and line them perfectly with the reed. Tighten all bolts and screws securely, using lock washers when possible.

Squaring the lay with the swords is a feature of the lining procedure that is usually neglected or overlooked entirely, but it is impossible to have the loom perfectly lined unless the lay is lined with the swords. Most every loom fixer always has a few chronic bad running looms on his and failing to square the lay with the swords is sometimes the hidden cause of the bad looms.

It is very important to tighten the bolts holding the lay to the swords before lining the loom. Should the reed be squared and the box plates lined and then the bolts tightened afterwards the parts would be drawn out of line. A new reed, in good condition, is of course preferable for lining purposes, and the reed bed should always be carefully inspected before placing the reed in the loom. The reed cap should always be driven down on the reed and tightened in place to hold the reed securely tight its full length, but special care should be taken not to drive it down too tightly on the reed, because this will warp or bend the reed dents and will cause them to become broken sometimes, and will permanently damage the reed to the extent of causing undue chafing and breakage of the warp threads.

Sometimes there will be high and low places in the reed bed in the lay and the hand rail, or reed cap. When this is the case it can be easily corrected by making a tool, using an old file or a piece of tool steel to fit into the reed bed, and the beds can then be scraped or planed out the desired amount.

The reed should be in perfect line and tight its full length. A long straight edge is preferable for lining the reed, but a stout twine can be used if properly handled. Should the reed have depressed or protruding places these can be removed by scraping or planing with the tool mentioned above.

The shuttle race plate should be level from end to end. Should there be bumps, or high and low places in the shuttle race, they can be removed with a small block plane or wood rasp. The lay end plates should be in perfect line from end to end with the shuttle race plate. Use a long straight edge for this work. If the lay end plates are low in relation to the race plate, this can be remedied by packing under them with hard cardboard. If they are too high, remove them and plane, or file the lay down the needed amount.

Care should be taken to see that the shuttle race plate is not close enough to the reed to depress and warp the

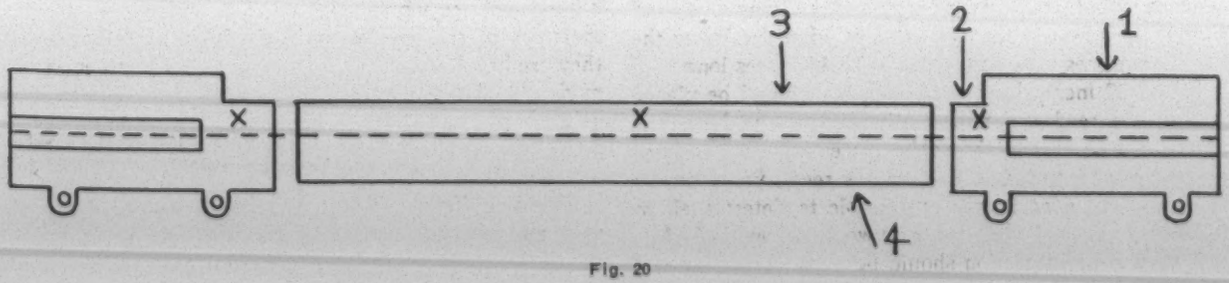


Fig. 20

reed dents sidewise when the reed is tightened in place. If the dents are warped, or bent sidewise, it will cause the space between the dents to be partially closed, and thereby cause undue chafing and breakage of the warp threads. This also will cause the dents to become chrystallized and broken, in time.

The reed should be perfectly square with the shuttle race plate. Use a reed square for this work. Place the reed square on the race plate and move it back until it contacts the reed. Should the reed project too far forward at the top, this can be corrected by removing the reed cap or hand rail, and file or rasp it off the required amount at

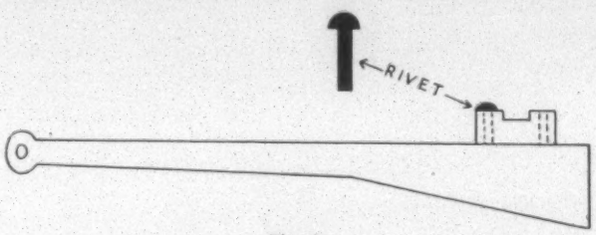


Fig. 21

the point where it contacts the swords. Should the reed cap be inclined backward too far, this can be corrected by packing up between the reed cap and the swords, using pieces of tin or sheet metal, and attach them to the reed cap with small wood screws. Otherwise this packing would become lost off when the cap is removed for any cause. Just lining the lay end plates with the shuttle race plate is not sufficient to obtain a perfect lining job on a loom. The slots in the lay ends, or picker stick guides, should be in perfect alignment with the reed and back box plates.

Sometimes, in various ways, the lay ends or the lay end plates will become warped or twisted out of line, and this will create a very bad running condition of the loom, and almost invariably this will be overlooked, hence there is another chronic bad running loom on the job. Shown in Figure 20 is an easy and accurate way to check this condition. Indicated by the numbers are (1) the lay end plate, (2) the back box plate, (3) the reed, and (4) the shuttle race plate.

After the reed, the shuttle race plate, and the back box plates have been lined, draw a stout twine from end to end of the lay, indicated by dotted line in Figure 20. The twine should exactly center the slots, or picker stick guides, in the lay end plates, and if the loom is in perfect line there should be exactly the same distance from the twine to the back box plates, on both ends, as it is from the reed to the twine in the center of the lay, indicated by X marks in Figure 20. This is important on any loom and is vitally important on broad looms. It is readily apparent how impossible it would be for the loom to run properly with the picker stick guides out of line with the reed. Running the loom and throwing the shuttle straight with the lay end plates in this condition would be the same as trying to hit a target with a rifle having a crooked barrel. It is best to use two straight edges for lining the back box plates; one should be 24 to 36 inches long, and one 8 to 10 inches long. The long one should be placed against the reed and moved out towards the back box plates; the short one should be placed against the back box plates and moved in towards the reed. By using the short straight edge it will be possible to detect a slight fullness of the reed that otherwise would be overlooked.

A very close inspection should be made of the lay end plates and back box plates and all square or sharp edges should be rounded off and highly polished with a fine dressing file and fine emery cloth. This is highly important, as it will greatly prolong the life of the shuttle and reduce loom stoppages, thereby insuring more efficient and economical operation of the loom.

When the back box plates are too far back they should never be brought into line by packing up behind them with cardboard or any other material not attached to the box plate. If the packing is not attached securely to the plate it will in time become loose and be lost out, or will be overlooked when the plate is removed for any cause and become lost. When necessary to pack up behind the back box plates, it is best to drill holes in the four corners, where they are filed for lining, and insert small rivets as shown in Figure 21. The holes should be drilled to size where the rivets will fit tight. The rivets can then be filed as desired and the plates lined as perfectly as new ones. This should never be done with straight pins, because the pins will soon become loose and the plates will be thrown out of line. The heads of the rivets will act as a resting base and hold them securely. Another advantage in using the rivets is that they can easily be removed and replaced with new ones should it become necessary to reline the plates at any time.

The reed should be kept tight at all times while the loom is running. Should the loom be allowed to run with the reed loose, the reed bed in the lay and the bed in the band rail, or reed cap, will become worn very quickly and throw the reed out of line. This will cause the loom to run badly and will wear the shuttle unnecessarily, and when the reed bed becomes worn the only way to repair this damage is to put in a new lay, or new hand rail, or both, or to plane or scrape out the old ones, which is a very difficult and time-consuming job.

The proper lining of the loom is one of the most vitally important things a loom fixer can do to take work and worry off himself and the weaver, decrease loom stoppage

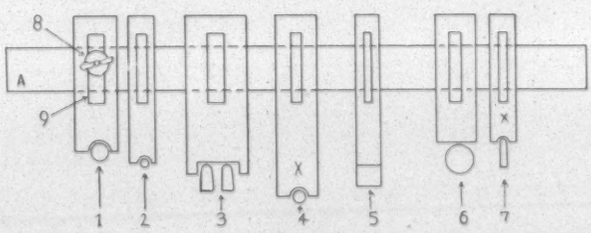


Fig. 22

supply cost and seconds, and increase production. A loom will sometimes run out of line and cause unnecessary wear on the shuttle, wear on the reed, undue wear on the front binder leathers, breaking out the warp threads, occasional tipping, or slamming off, etc., and be overlooked by the weaver. It is an almost invisible trouble in so far as the weaver is concerned; therefore the fixer will be helping himself and the job in many ways by making regular inspections of the shuttles on his section to determine if they are being unduly worn. Also when this inspection is made it is wise to tighten all the screws in the shuttle.

A Gauge for Setting the Whip Roll, Stop Motion Girt, and the Take-Up Roll

Shown in Figure 22 is a home-made handy gauge for easy and accurate setting of the aforementioned parts.

(Continued on Page 41)

Changes at Morton Chemical Co.

JOSEPH R. MORTON, president of Morton Chemical Co., has just announced some changes in the corporate set-up of that company, together with an expansion of their sales and manufacturing facilities.

Amendment to the charter has just been approved by the North Carolina Secretary of State, authorizing the issuance of $100,000 additional preferred stock, $25,000 of this has now been subscribed and paid for and the balance may be issued when and if additional funds are desired for further expansion of facilities.

This increase in working capital will permit further expansion in the manufacturing facilities of the plant, already one of the largest and best equipped in the South for the manufacture of organic specialties. It is planned that the company will go into manufacture of materials for trades other than textiles, the bulk of the company's business having been done up to now in that field.

Joseph R. Morton

Robert E. Buck

Air View of Plant and Office.

Coincident with this expansion of manufacturing facilities, the company is opening a branch office in the Woodside Building, Greenville, S. C., and announces that Robert E. Buck, of Greenville, is now associated with the company and in charge of the Greenville office. Mr. Buck is a native of Greensboro, and after graduating from high school in Charlotte, studied Chemical Engineering at the University of North Carolina and the University of Virginia. Following this, he took a course in Textile Chemistry at Philadelphia Textile School. He then went to work with Arnold, Hoffman & Co., of Providence, and has been with them for 14 years, up until coming with Morton Chemical Co., just prior to leaving them, having been in charge of their South Carolina territory.

Portion of modern laboratory.

Morton Chemical Co. is manufacturing a wide range of organic specialties embracing all types of finishing agents both anion and cation active; wetting agents, mercerizing assistants, synthetic detergents, and waterproofing agents, as well as their wide range of sulphonated products and

Rear view of plant, showing solvent recovery still, blending, refrigeration and part of sulphonation equipment.

(*Continued on Page 40*)

Cotton Products Export Program

(Fiscal Year 1941)

IN the government's program to increase the exportation of cotton and cotton goods through a program of export subsidy, the following communication has been released by the government regarding this subsidy:

Second Determination of Rates of Payment

Pursuant to the terms and conditions of the announcement by the Secretary of Agriculture in connection with the Cotton Products Export Program (fiscal year 1941), payments will be made in connection with the exportation of cotton products at the following rates, effective 12:01 A. M., E. S. T., August 26, 1940.

I. Rates for Cotton Products Sold or Contracted for Sale On Or After August 26, 1940

Class of Cotton Products:

	Cents Per Lb. Net Weight
A. Card strips, comber waste, and unbatted cotton as part of a cotton product	.00
B. Picker laps, sliver laps, ribbon laps, sliver, roving, batting, and mattress felts made wholly of unused cotton, card strips, or comber waste or combinations thereof	3.00
C. Yarn, thread, twine, cordage, and rope, either polished or unpolished	3.30
D. Coated products, including rubber coated and rubberized products, buckram, crinoline (provided that such coated and rubberized products, buckram, and crinoline, other than articles manufactured therefrom, are ten yards or more in length), elastic containing 20 per cent or more of rubber by weight, and articles manufactured therefrom	1.80
E. Fabrics (excluding buckram, crinoline, and coated fabrics, and fabrics less than ten yards in length), absorbent cotton, and elastic containing less than 20 per cent of rubber by weight	3.50
F. Articles manufactured from fabrics (other than buckram, crinoline, coated fabrics, or elastic containing 20 per cent or more of rubber by weight)	3.90
G. Articles not otherwise specified, and articles and fabrics containing a mixture of cotton and other fibers (except fabrics less than ten yards in length)	2.80
H. Coated products, including rubber coated and rubberized products, buckram, and crinoline (but not including articles manufactured therefrom), less than ten yards in length	1.50
I. Fabrics (excluding buckram, crinoline, and coated fabrics) less than ten yards in length	2.80
J. Fabrics containing a mixture of cotton and other fibers less than ten yards in length	2.20

II. Rates for Cotton Products When Evidence of Sale Or Contract for Sale On Or After August 26, 1940, Is Not Submitted

	Cents Per Lb. Net Weight
A. Card strips, comber waste, and unbatted coton as part of a cotton product	.00
B. Picker laps, sliver laps, ribbon laps, sliver, roving, batting, and mattress felts made wholly of unused cotton, card strips, or comber waste or combinations thereof	.80
C. Yarn, thread, twine, cordage, and rope, either polished or unpolished	.90
D. Coated products, including rubber coated and rubberized products, buckram, crinoline, and elastic containing 20 per cent or more of rubber by weight, and articles manufactured thereofrom	.50
E. Fabrics (excluding buckram, crinoline, and coated fabrics), absorbent cotton, and elastic containing less than 20 per cent of rubber by weight	1.00
F. Articles manufactured from fabrics (other than buckram, crinoline, coated fabrics, or elastic containing 20 per cent or more of rubber by weight)	1.10
G. Articles not otherwise specified and articles containing a mixture of cotton and other fibers	.75

III. General

(a) Exporters preferring to give notice and file declarations of delivery for export, mailing to an export destination, or export, as provided in the announcement by the Secretary of Agriculture, may do so but if claims are based on the rates set forth in Paragraph I satisfactory evidence that the products were sold or contracted for sale on or after August 26, 1940, must be submitted. Such evidence will not be required if payments are claimed at the rates set forth in Paragraph II.

(b) If an article contains two or more cotton products, it shall be considered as within the class of the cotton product constituting the largest portion by weight of such article.

(c) No payments will be made in connection with any article containg less than 50 per cent by weight of cotton fiber.

(Continued on Page 36-E)

Southern Distributors for Beach Soap Co.

Beach Soap Co., Lawrence, Mass., manufacturers of a variety of soaps for the textile industry and others, have recently appointed three distributors for their products in the South, according to an announcement by G. R. Fulton, manager.

The new Southern representatives for the company are Hercules Powder Co., Atlanta, Ga.; Taylor Salt & Chemical Co., Norfolk, Va., High Point, N. C., and Charlotte, N. C.; and the Greenville Textile Supply Co., Greenville, S. C. This marks the first time they have had distributors in this section.

Beach Soap Co. is represented throughout the entire South by John C. Robertson, 1229 Pasadena Avenue, Atlanta, Ga.

$250,000 Blaze Hits Chatham Mfg. Co.

Elkin, N. C.—Fire which originated in a drying machine caused an estimated $250,000 damage to the scouring plant of the Chatham Mfg. Co. on the evening of September 7th.

The fire was discovered at 7:30 P. M. by a workman in the room. The flames spread quickly to the entire plant and were out of control within seconds after the 30 men at work on the night shift had fled to safety.

The sprinkler system failed to stop the onrush of the fire and was cut off. Approximately 150,000 pounds of wool valued at between 75 and 80 cents a pound was destroyed.

The Elkin fire department fought the flames with the aid of Chatham employees and prevented its spread to the storage plant, saving about 40 per cent of the structure from fire.

The plant was erected about 47 years ago and was the second building occupied by the Chatham Co. The plant was used to scour and redry wool preparatory to the manufacture of blankets.

Officials of the company estimated that all machinery had been ruined by the blaze and would prevent using this part of the plant until the machinery could be replaced. The building and machinery were estimated at $150,000.

The scouring plant was almost completely submerged by the flood waters of the Yadkin River August 14th. It has been flooded numerous times during the past 47 years. The structure is on the banks of the Yadkin River in the heart of Elkin.

It was learned that officials of the Chatham Co. had been making plans to erect another plant on higher ground to replace the old structure.

$500 Is Taken At Greer Mill

Greer, S. C.—Between $500 and $600 in cash was taken from the Victor-Monaghan Mill office at Greer on the night of September 2nd when the safe das smashed, county officers reported.

The robbery was the second at the same place within approximately two years. About $600 was taken in the first theft, Deputy Sheriff B. B. Brockman said.

Officers said the office was entered through a rear window and the safe combination and door smashed by heavy hammer blows.

All the money taken was in currency of various denominations.

The robbery was discovered when office employees reported for work.

Deputy Sheriff Brockman, Detective I. L. Cooksey, Identification Officer George Pruette and Rural Officer Roy Lister began an immediate investigation.

Textile Operating Executives of Georgia Meet Sept. 21st

The Textile Operating Executives of Georgia will hold their regular Fall meeting on September 21st at the Georgia School of Technology, Atlanta, Ga. The meeting, which will be opened at 9:30 A. M., Central Daylight Savings Time, will be held in the Chemistry Building, which adjoins the A. French Textile School. Slashing and weaving questions will be discussed from a prepared questionnaire.

The meeting will be in charge of J. C. Platt, agent, Chicopee Mfg. Corp., Chicopee, Ga., and George E. Glenn, superintendent, Pepperell Mfg. Co., Lindale, Ga., chairman and vice-chairman, respectively.

The slashing discussion will be led by Henry B. Robinson, superintendent, Columbus Mfg. Co., Columbus, Ga., and the discussion on weaving will be led by Erwin R. Lehmann, superintendent, Langdale Mill Division of the West Point (Ga.) Mfg. Co.

Mill men from other States are cordially invited to attend this meeting.

The set of questions to be discussed at the meeting are as follows:

Slashing

1. What percentage of mildew preventive should be used in size, per finished gallon? What type preventive gives best results?
2. Have you had any difficulty caused by top squeeze rolls riding off center of the bottom rolls, and what steps do you take to correct and prevent this condition?
3. What do you consider a normal length of run-outs on warper beams at the slasher? How do you check the uniformity of the length of warper beams?
4. Should the weight of squeeze rolls be varied with a change of speed?
5. What method is used to prevent loom beam heads from rusting and thus prevent rusty selvages? If painting loom beam heads, have you overcome the presser roll scraping paint off of the heads; if so, how? What type of paint do you use?

Weaving

6. How do you handle oily and other undesirable filling in the weave room?
7. Give the causes and prevention of the greatest accident hazard in the weave room.
8. Do you have a feeler man where you are running Stafford thread cutters or Midget filling feelers? How many looms per man and what are his duties? How do you determine the length in yards of the yardage of the bunch that is necessary on the quill?
9. What method is used most generally on tying-in machines in order to get straight warps?
10. Who passes on broken or worn loom parts and decides whether they should be discarded or repaired?
11. How do you store your reeds? What is your experience with a reed cleaning machine?
12. What experience have you had when going to larger package beams on your looms; for instance, what trouble have you had with let-offs and general weaving?

TUFFERIZED Card Clothing

(U. S. PATENT NO. 2,174,17-)

An Exclusive Howard Bros. Patented-Precision-Process

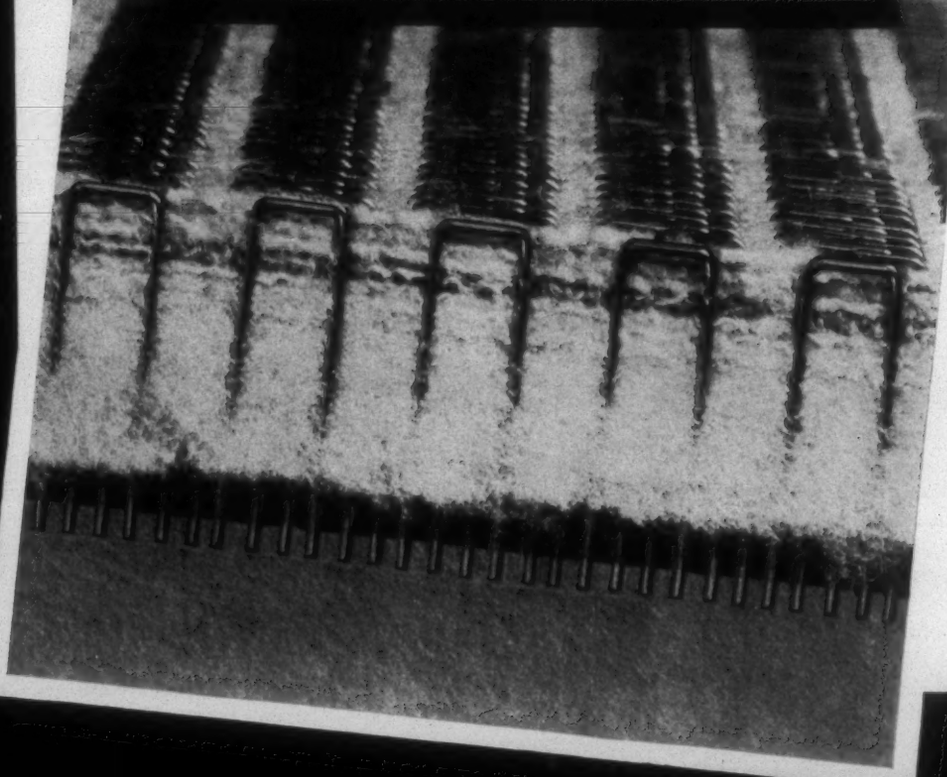
All wires seat square, flat and firmly into the Foundation.

All wires are parallel.

All wires are even in length.

All wires are spaced uniformly.

Microphotograph is 5 times actual size.



TRADE MARK

TUFFER

REG. U.S. PAT. OFF.

CARD CLOTHING

HOWARD BROS. MFG. CO.

HOME OFFICE AND FACTORY: WORCESTER, MASS.

Southern Plants: Atlanta, Ga., Gastonia, N. C. *Branch Offices:* Philadelphia, Dallas

Canadian Agents: Colwool Accessories, Ltd., Toronto 2, Canada

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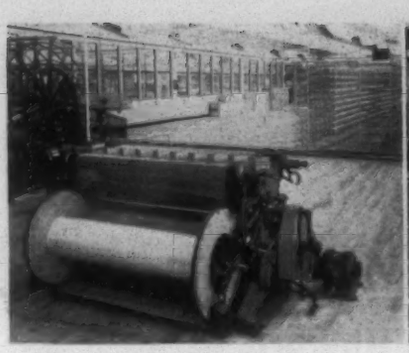
Products: Card Clothing for Woolen, Worsted, Cotton, Asbestos, and Silk Cards—Napper Clothing, Brush Clothing, Strickles, Emery Fillets. Top Flats Recovered and extra sets loaned at all plants—Lickerins and Garnett Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant—Midgley Patented Hand Stripping Cards, Howard's Special Hand Stripping Cards and Inserted-Eye and Regular Wire Heddles.



Warping Equipment and Magazine Creel

View of Weaving Department

Dye Becks in the Dyeing Department

Rayon Manufacturer Establishes Textile Manufacturing Unit

WITH a view to studying and solving rayon textile manufacturing problems wherever they may arise, the American Viscose Corp. has established an experimental Textile Unit at Marcus Hook, Pa. This new department of the company is now in operation, in connection with the company's sales development department and laboratories.

The purposes of the unit are: Textile research to develop new technique and methods as well as machinery; testing the company's products in the various textile processes; checking practice and procedure in textile mills; and manufacturing samples for the fabric development department in New York.

As the sales development department, under the management of E. S. Kennedy, is made up of technical men, the unit logically comes under the supervision of that department. An important phase of administrative policy is the close working relationship between the textile unit, of which Rene Bouvet is in charge, and the company's textile research and standards laboratory, of which Dr. F. Bonnet is manager. All major laboratory work for the unit is handled by Dr. Bonnet's department.

The equipment in the textile unit provides for spinning staple into yarn on the cotton system, winding, warping, weaving and finishing of fabric, and knitting by various processes. The machinery installed has been chosen to give maximum flexibility of operation. Duplicate space is provided alongside the cotton process equipment for the installation of woolen and worsted process machinery which is next to be provided.

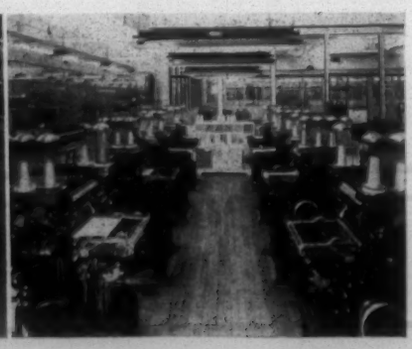
In the staple spinning section, equipment provides for short and long staple, enabling the spinning up to 3-inch on the cotton system. The machinery for long staple spinning, which is new in the field, was especially designed and built for the textile unit. The picker in this department is provided with alternate equipment which can be installed to produce various results. The cards turn out work on normal production, or can be set to an unusual non-standard ratio of speeds and settings. Roving and spinning frames include various types of long draft and super-daft as well as normal cotton machines.

The weaving department includes principal types of looms in current use, and also the more advanced models. It is divided into looms for spun rayon and others for filament rayon, so that atmosphere conditions for each can be controlled. Warping is provided on both cotton and silk systems. Provision is made also for throwing and sizing under various conditions. The cone creel, as well as the sizing machinery, and other processes in this de-

(*Continued on Page 36-E*)

Fibro Spinning—Note Paper Tubes

Revolving Flat Card and Picker



Full Fashioned Hosiery Machines

Gaston County Division of Southern Textile Association To Discuss Unemployment and Social Security

The North Carolina State Unemployment Division and the Federal Social Security Administration will be up for discussion at the Fall meeting of the Gaston County Division of the Southern Textile Association, to be held at the Boy Scout headquarters, Gastonia, N. C., Friday evening, September 27th, at 7:30 o'clock.

The discussion of unemployment and social security is one of much importance to all operating executives of textile mills, and it is expected that a large crowd will be in attendance to get information on the subjects.

Earl W. Brockman, of the North Carolina State Unemployment Division, will be there and will make a short talk and then answer questions from the audience. Another speaker, who will also give answers to questions from the audience, will be D. W. Lambert, of the Federal Social Security Administration.

H. Gilmer Winget, chairman of the Division, urges all textile mill men to attend this important meeting.

OBITUARY

SIDNEY B. PAINE

Sidney B. Paine, retired New England manager of the mill power division of the Industrial Department of the General Electric Co., died August 14th in a Boston hospital. He was 84 years old.

Mr. Paine, at the time of his retirement in May, 1926, had served 33 years as manager of the mill power division of the G-E Industrial Department at Boston. The outstanding achievement of his long and successful career was his introduction of the electric drive in the textile industry.

At the age of 19, he entered the employ of the American Linen Co., of Fall River, Mass., where he learned the textile business in all its branches.

Mr. Paine later became associated with the General Electric Co. and was quick to see the many advantages to be realized by employing the electric motor for driving looms, spinning frames and other machines in the textile industry. He was encouraged by Charles A. Coffin, first president of the General Electric Co., and in 1893 he undertook the electrification of the Columbia Cotton Mills, Columbia, S. C.

The electrical equipment designed, built and installed by G-E engineers in the Columbia mill met with such success and satisfaction that the economies and other advantages resulting from the electric drive attracted immediate attention throughout the textile world. This attention led to a succession of similar installations that marked the beginning of a new era in the industry.

These successes led to the formation of a department within the General Electric Co., in 1893, known as the mill power department, specializing with equipment for textile mills. Mr. Paine was named manager of this department.

Stuart W. Cramer Heads Southern Combed Yarn Spinners

MAJ. STUART W. CRAMER, JR., president of the Cramerton Mills, of Cramerton, N. C., was elected president of the Southern Combed Yarn Spinners' Association at its annual meeting at the Gastonia Country Club, Gastonia, N. C., on September 10th. Major Cramer succeeds J. Harold Lineberger, of the Acme Spinning Co., Belmont, N. C., as head of the Association.

Other newly-elected officers are: S. M. Butler, of the Carlton Mills, first vice-president, and W. L. Balthis, of the Peerless Spinning Corp., and the Balston Yarn Mills, Inc., as second vice-president.

Re-elected are: T. L. Wilson, of Ruby Cotton Mills, Gastonia, as treasurer, and Mildred G. Barnwell as executive secretary.

J. Harold Lineberger, the retiring president, was chosen chairman of the executive committee.

Directors elected to serve for three years are: W. H. Suttenfield, of Superior Yarn Mills, Statesville, N. C.; A. G. Myers, of Textiles, Inc., Gastonia; John Crawford, of Rowan Cotton Mills Co., Salisbury, N. C., and C. C. Armstrong, of Gastonia Combed Yarn Corp.

Directors elected to serve for two years are: Horace Johnston, of Johnston Mills Co., Charlotte, N. C.; Ralph Robinson, of Robinson Yarn Mills, of Gastonia; R. D. Hall, of Stowe Thread Co., Belmont, N. C., and T. H. McKinney, of American Yarn & Processing Co., Mt. Holly, N. C.

Directors elected to serve for one year are: C. J. Beaver, of China Grove Cotton Mills, China Grove, N. C.; A. K. Winget, of Efird Mfg. Co., Albemarle, N. C.; J. A. Graves, of Wiscassett Mills Co., Albemarle, N. C., and Richmond Thatcher, of Standard-Coosa-Thatcher Co., Chattanooga, Tenn.

President Cramer Praises Membership

Expressing his firm conviction that the Southern Combed Yarn Spinners' Association would "take its proper part in national preparedness and defensely," newly-elected President Stuart W. Cramer, Jr., told the meeting that it stands first among similar associations.

He gave two reasons why the Association has such a high reputation, first, because it has capable and efficient leadership, and, second, because it has an intelligent and co-operative membership.

President Cramer was installed in his new office following the address of retiring President Harold Lineberger, who reviewed the year's accomplishments, and concluded with emphasis that the "outlook appears very bright." He referred especially to the statistical position of the combed yarn industry, which was presented in detail in the report of Executive Secretary Barnwell.

Basis for Better Prices

"The basis for better prices is much more secure than a year ago," said President Lineberger, "and the only danger is that we may not exercise sufficient restraint in pricing our yarn. I do advise that we exercise restraint."

The guest speaker at the annual meeting was Paul Wooten, president of the National Conferences of Business Paper Editors and Washington correspondent of McGraw-Hill Publications and other publications, who gave an intimate picture of news gathering in the Capital, and reviewed particularly the war situation, which, he said, dominated everything in Washington.

Following his talk, Mr. Wooten answered questions on preparedness, conscription and the National Labor Relations Board which were asked, respectively, by Kay Dixon, Caldwell Ragan and George Cramer.

Dave Hall, a former president, spoke briefly on the obligation of the Association to the national preparedness program and expressed the belief that the Association would meet all these problems with its usual united front.

Mrs. Barnwell's report as executive secretary gave a detailed account of the work of the Association in the last year. It also contained numerous letters received by Mrs. Barnwell and the Association in appreciation of the book, "Faces We See," which was published as a public relations project of the group.

In discussing the condition of the industry, Mrs. Barnwell said that its statistical situation had never been better than during the last 12 months. Weekly operations for the year beginning September 1, 1939, averaged 75.3 hours a week compared to 73 hours for the same period in 1938-39 and to 65 hours for 1936-37. This increased operation time, almost the maximum of the industry's 80-hour schedule, meant a total payroll from the combed yarn group of $19,284,330 for 1939-40, an increase of $1,020,122 over the previous fiscal year.

Other figures showed that during 1939-40, combed yarn mills produced 110,673,813 pounds of yarn and shipped 110,027,993 pounds. Unfilled orders on the books of the mills total 23,702,531 pounds compared to 18,453,759 pounds this time last year and the industry has on hand only 1,503,196 pounds of unsold stock compared to 1,753,943 pounds last year.

The meeting of the board of directors of the Association was held during the morning, at which routine affairs were considered. There were about 100 present at the meeting, which began at 1 P. M.

Stuart Mfg. Co. Adds Machines

Easley, S. C.—The Stuart Mfg. Co. plans to expand its plant from 50 machines to 125 machines, and its operating personnel from 60 workers to 175. This concern manufactures shirts, pants and similar wearing apparel and began production here on March 1st. It is owned and operated by Stuart Rabb, formerly an official of the Erlanger Cotton Mill and the Nokomis Cotton Mills, at Lexington, N. C.

American Textile Woolen At Fiftieth Milepost

The American Textile Woolen Co., which owns the Sweetwater and Athens, Tenn., woolen mills, is observing its fiftieth anniversary. In celebration, F. A. Carter, of Sweetwater, Tenn., who is president, wrote letters of apprecation to many people who have either been connected with the mill or have transacted business with it. He sent with the letters several hundred auto-pencils.

An anniversary edition was issued by the *Sweetwater News*. It told how the company had risen from a $50,000 undertaking to one valued at nearly 1 million dollars during the 50 years.

Mr. Carter 50 years ago began work with the mill as office boy, shipping clerk and bookkeeper.

G. H. Gallaher, of Knoxville, is the only living original stockholders of the Sweetwater Woolen Mill, which now has 16 sets of cards, 10,000 spindles and 100 broad looms, and is also operating the Athens Woolen Mill equipped with nine sets of cards, 32 broad looms, 126 narrow looms and 5,600 spindles. The two mills produce 2,500,000 yards of cloth per year. Sweetwater Woolen Mills employs 600 to 800 people and the Athens Woolen Mill employs 300 to 400, when running full time. The mills are the largest tax and freight payers in their respective towns.

Officers include: F. A. Carter, president; C. L. Clark, secretary-treasurer; M. P. Kilpatrick, general manager and assistant secretary; R. B. Timberlake, general superintendent; Frank Casey, superintendent of Sweetwater Woolen Mill, and Tom Kegan, superintendent of Athens Woolen Mill. J. G. Fisher, vice-president, died recently and his place has not yet been filled.

The mills are now manufacturing cassimeres, suitings, topcoatings, overcoatings, and mackinaws, which are sold through L. Bachmann & Co., and the Commodore Woolen Co., New York, and J. G. Hanf & Co., New York. They also manufacture a line of camp blankets which are sold through the Catlin, Farish Co., New York.

Celanese Corp. Six Months' Net Profit Rises To $4,522,589

Net profit of $4,522,580 is reported by Celanese Corp. of America and wholly owned subsidiaries for the first six months ended June 30, 1940. This compares with net profit of $3,027,774 in the corresponding period of 1939.

After dividend requirements on the preferred stocks, earnings for the half year are equal to $2.86 a share on 1,076,891 shares of common stock to be outstanding after the issuance of the August 15th stock dividend. This compares with $1.73 a share on 1 million shares in the corresponding period of 1939.

Personal News

J. H. Fagan is now superintendent of the Cleghorn plant of the Spindale Mills, Rutherfordton, N. C.

Ned Barbre has resigned as athletic director of the Bibb Mills at Macon, Ga.

J. F. Armstrong is now overseer of carding at the Cleghorn plant of the Spindale Mills, Rutherfordton, N. C.

J. E. Vaughn is now second hand in the weaving department at the Easley Cotton Mills No. 2, Liberty, S. C.

H. W. Kiser has resigned as superintendent of the Watts Mills, of Laurens, S. C.

E. S. McCall has been promoted from second hand to overseer of weaving at the Easley Mill No. 2, Liberty, S. C.

R. G. Hoch has resigned from the posititon of manager and treasurer of the Biltmore Hosiery Co., Inc., Naples, N. C.

J. K. Pittman, graduate of N. C. State College Textile School, is now assistant superintendent of the Randolph Mills, Franklinville, N. C.

Guy Atkinson has been promoted from second hand to overseer of the cloth room at the Easley Cotton Mill No. 2, Liberty, S. C.

Edwin H. Bost, manager of the Erwin Cotton Mills, at Erwin, N. C., was married recently to Miss Maude Graham, of Cooleemee, N. C.

P. A. Kay has resigned as overseer of weaving at the Easley Cotton Mill No. 2, Liberty, S. C., to become superintendent of the Gossett Mills at Williamston, S. C.

S. C. Hennesy, formerly with Standard-Coosa-Thatcher Co., Chattanooga, Tenn., is now connected with American Aniline Products, Inc., in their Charlotte, N. C., laboratory.

K. D. Forsyth is now superintendent of the Aliceville, Ala., plant of Alabama Mills, in addition to his duties as superintendent of the plant of the same company at Winfield.

W. I. Bullard, president of the E. H. Jacobs Mfg. Co., Danielson, Conn., and Charlotte, N. C., has accepted the office of director of the Boy Scout drive for Charlotte.

Everett M. Cushman has resigned his posititon with the Cartex Mills, Salisbury, N. C., to become superintendent of the China Grove (N. C.) Cotton Mills, succeeding Geo. W. Boys.

Donald Comer, chairman of the Board of Avondale Mills, Birmingham, Ala., has resigned as vice-president of the Southern States Industrial Council for Alabama, Georgia, and Florida.

W. A. Ball has resigned his position with the Thomas Hosiery Mills, of High Point, N. C., to accept the position of general manager of the Bell Hosiery Corp., Suffolk, Va.

D. C. Gunter, formerly in charge of spinning, winding and twisting, has been made superintendent of the Modena plant of the Ranlo Mfg. Co., Gastonia, N. C. This is the rayon division of the company.

S. L. Mavity has resigned as superintendent of the Silver Knit Hosiery Mills of High Point, N. C., and is now in charge of the seamless knitting department of the Elliott Knitting Mills, Hickory, N. C.

Walter Dillard, vice-president and general manager of the New Braunfels (Tex.) Textile Mills, has been elected president of the Board of City Development and Chamber of Commerce of New Braunfels.

Chas. E. Rich, Auburn Textile graduate of 1934, and now connected with Callaway Mills, LaGrange, Ga., in an executive capacity, has become engaged to Miss Sara Winifred Milam, of LaGrange, the marriage to be in October.

George W. Boys, for the past six years superintendent of the China Grove (N. C.) Cotton Mills, has resigned that position to become vice-president and assistant treasurer of the Green River Cotton Mills, Tuxedo, N. C. He will take over his new position October 1st.

C. D. Green has resigned as treasurer and general manager of the Laurens (S. C.) Cotton Mills to accept a posititon in the management of the Mills Mills at Greenville and Woodruff, S. C., and the Fairforest Finishing Co., of Spartanburg, S. C.

S. M. Newsome, Clemson textile graduate of 1934, has resigned from the faculty of the Parker High School,

Greenville, S. C., to become a lubrication engineer for the Sinclair Refining Company, with headquarters in Atlanta, Ga.

C. W. McNeely To South America

C. W. McNeely, of East Point, Ga., will leave in a few days for Rio de Janeiro, Brazil, and will act as superintendent of a mill not far from that city. M. T. Grimes, formerly of Gainesville, Ga., is the manager of the company.

Mr. McNeely was for ten years superintendent at Fort Mill, S. C., and has filled many other responsible positions.

Malcolm Thomson Traffic Manager Of Pennsylvania Corrugated Box Division

Malcolm T. Thomson has been appointed division traffic manager of the Pennsylvania Corrugated Box Division of the Robert Gair Co., of Philadelphia.

Mr. Thomson is well known in the South, having been formerly traffic manager of the Stone Mfg. Co., of Greenville, S. C. He resigned his position with that firm to become traffic manager of the Philadelphia Export & Import Traffic Bureaus and will continue to serve the Bureau in that capacity.

Two Mill Electricians Electrocuted in One Week

Two electricians met death in Southern textile mills the first week in September, as a result of coming in contact with high voltage lines. Following are daily-press accounts of the accidents:

Taylorsville, N. C., Sept. 3.—Robert Jolly, 18, was electrocuted this afternoon in an accident at the Rhodes-Whitener Mill five miles south of Taylorsville. Jolly fell against an electric motor and 550 volts passed through his body. Artificial respiration was used but he died almost immediately.

The youth was working with a repair crew in the mill which was wrecked by the August flood.

Rock Hill, S. C., Sept. 5.—A 22-year-old lineman, E. C. White, of Greenville, was electrocuted at the Aragon Mills about noon today while working on a wiring job in an addition now under construction at the mills.

White was connected with the Huntington & Guerry Construction Co., of Greenville.

It was understood that White and other linemen were working on wiring in the mill addition when the young Greenville man came in contact with a "live" wire which killed him almost instantly. He was dead on arrival at St. Philips Hospital, where he was rushed after the accident.

R. M. Banks Assistant To President of American Cyanamid Co.

Reginald M. Banks has been appointed assistant to the president of the American Cyanamid Co. to promote the co-ordination of research and sales activities, according to an announcement made by the company.

Mr. Banks came to Cyanamid in 1928 from Nitrate Agencies Co., a subsidiary of W. R. Grace & Co. He has recently been manager of the Organic Chemical Sales Department of American Cyanamid & Chemical Co.

Walter T. MacAdam has been appointed to fill the post left vacant by Mr. Bank's promotion.

Northern N. C.-Va. Division Of S. T. A. Meets in Spray October 5th

The Fall meeting of the Northern N. C.-Virginia Division of the Southern Textile Association will be held at the Central Y. M. C. A., Spray, N. C., on Saturday, October 5th, beginning at 9:45 A. M.

Luther H. Hodges, general manager of the Manufacturing Division of Marshall Field & Co., Spray, will be the principal speaker on the program and his subject will be "Training for Textiles." Throughout his long career as a worker and executive in the textile industry, Mr. Hodges has been deeply interested in training and his message to this division will come in the form of a practical, common-sense talk on this very important subject.

The general theme for discussion at the Spray meeting will be "Good Mill Housekeeping, Safety and Quality." This subject is of general interest to every textile plant in the division and it is expected that a large number of representative textile operating executives from the Northern North Carolina-Virginia Division will attend this meeting. A cordial invitation is being extended to all supervisors of textile plants.

T. C. Pegram, vice-chairman of the Division, will have charge of the meeting.

Questions for Discussion

1. What system do you use for placing picker laps, roving cans, filling boxes, warps, trucks, etc., in order to conserve space and to keep alleys clear and the mill clean and orderly?
2. Has anyone present determined how much artificial light is saved by keeping mill windows clean? Do you have a regular schedule for cleaning windows and what is it? What type sash and glass do you have in your windows.
3. What method do you use for keeping people from spitting on your floors? What type cuspidor do you use and how are they placed? How do you clean your floors and what schedule do you follow?
4. What system do you use for cleaning overhead in the carding, spinning and weaving departments? What is your method and schedule for cleaning machinery?
5. What plan do you follow for beautifying mill yards and the village? What system do you use for keeping them clean and attractive?
6. What effect does good mill housekeeping have on your safety record? On the quality of your goods? Any other advantages?

N. C. State College Dean Likeness Reproduced in Cloth

Raleigh, N. C.—Using cotton yarns, students in the Textile School at N. C. State College wove a portrait of Col. J. W. Harrelson, Dean of Administration, on a jacquard loom. The design was painted by John M. Mauney, of Lincolnton, and E. J. Bendigo, of Greensboro, cut the cards for the loom. The portrait was completed during the summer session. Mauney painted perhaps 25,000 dots to produce the excellent likeness of Colonel Harrelson.

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Bombs Overhead

It is impossible to fully realize the frightfulness of the war which is now going on in Europe.

While human beings sit in their homes or, having been frightened from same, sit huddled in underground shelters, planes roar overhead and drop bombs which demolish everything arounc them.

Young German men fly, with racks loaded with death and destruction, and pull levers which send their loads hurtling upon buildings and homes below.

Then young British men load their racks and fly by night to wreck buildings lit by flares which they drop.

We have been in the habit of calling this the "age of civilization," but Europe, at least, has returned to the brutalities of the dark ages and uses the inventions of civilized men to do things more horrible than could have been done when our forefathers roamed the woods in skins and every man sought to slay every other man he met.

It is almost inconceivable, but the frightfulness of the present hour can be laid upon the door-step of one man, who sees himself as a world conquerer and cares not if lives are wrecked or how much damage is done by bombs from overhead.

We do not blame England for retaliating the damage being done by German bombs and admire the way in which the people of that tight little island are standing the gaff.

History teaches that those who seek to establish themselves as conquerors ultimately meet disaster and Hitler will share the same fate.

We in America, although we may be spared actual warfare, must realize that the expense of the conflict and the property being destroyed, must eventually result in economic distress for the entire world and that we in America will suffer therefrom.

No Time for Price Cuts

This is no time for reducing prices or to seek to secure orders by such methods.

Every economist and every person well versed in finance, says that the billions, soon to be expended for defense, will produce a period of prosperity of considerable duration.

Most of the economists say that, even if England is defeated, the expenditures in the country will cushion the effect, and that general good business in the United States will continue.

The present prices of cotton goods and yarns are very reasonable, based upon the price of cotton, and if there is any change they should be advanced.

We understand that certain mercerized yarns have recently been reduced in price, without apparent reason, but otherwise prices are holding firm.

No additional business is to be secured by reducing prices and operating upon a no-profit basis, and we hope that mills generally will sit steady and wait for the wave of prosperity, which is to result from defense expenditures, to lift prices to a profitable level.

Paul Green Advocates Social Equality

One of the tenets of communism is social equality between blacks and whites and those who espouse its cause seem never to miss an opportunity to further that objective.

Paul Green, of the University of North Carolina, wrote the play, "The Lost Colony," which has been shown for two years at Manteo, N. C.

About two weeks ago, there was a special showing for negroes, although some white people were present, and in accord with the traditions and customs of North Carolina, the races were seated in separate sections with a rope as the dividing line.

We note the following in a report of that showing:

Paul Green won an ovation from both sides the ampitheatre when he simply pointed to the rope that divided the audience into equal halves, and predicted that in time the rope, which he called a red thread, would disappear.

Paul Green was affiliated with Prof. E. E. Ericson, of the University of North Carolina, when communists made an attempt to prevent the punishment of the men who dynamited mills at Burlington, N. C.

Professor Ericson was later discovered eating dinner in a negro hotel at Durham, N. C., with a negro communist.

Now Paul Green tells a group of negroes that they can expect the day to come when they may take seats among white people and negro men may sit beside white girls.

Paul Green knows that that day will never come until and unless the communists or the nazi overthrow our Government and force evil conditions upon us.

Wicked Advertisers

The U. S. Department of Justice has brought suit against some of the large tobacco companies.

The complaint says:

Said defendants have by extensive and continuous nation-wide advertising and by various sales promotion schemes created and maintained such public acceptance and demand for their major brands that, the offering of such products for sale being a necessary adjunct to the conduct of numerous wholesale, retail and service establishments, such establishments are forced to handle the products of defendants and others even on unreasonable and arbitrary terms, and at such prices.

In other words, the tobacco companies have by advertising created a demand for their products and now our New Deal Government proposes to force them to discontinue such practices.

It becomes increasing evident that the Administration is definitely opposed to reward for individual effort.

They appear to be in favor of a leveling process and we have the idea that they have been observing such practices in Russia.

It is unthinkable that the Government should be able to obtain court sanction for this doctrine, which is directly opposed to all the fundamental principles of economics. This remains to be seen as the action progresses.

It is painfully evident, however, that the fight against merchandising — successful merchandising, that is—is at last coming out into the open. Through methods either crafty or clumsy, various Government departments have succeeded in creating the idea among many people that successful selling is almost a crime. But now the "almost" is being eliminated.

The Government which seeks to prevent sales being increased through advertising, now taxes each package of cigarettes 6½ cents, not to mention the levy upon the profits made in their manufacture.

Martel Mills Win Suit

We congratulate the Martel Mills Corp., of Lexington, S. C., upon the fact that they were sustained by the Federal Circuit Court of Appeals in their refusal to obey the orders of the National Labor Relations Board.

Judge Parker, speaking for the court, said:

We are bound by the Board's findings of fact as to matters within its jurisdiction, where the findings are supported by substantial evidence; but we are not bound by findings which are not so supported.

This is to us a very significant ruling because very seldom have the rulings of the National Labor Relations Board been based upon "substantial evidence."

The decision in the Martel Mills case the court says:

It is one thing to state that the findings of the Board will be deemed conclusive where they are sustained by substantial evidence; it is quite another thing to define precisely what is meant by the term "substantial," and to apply that definition to the concrete case. The Supreme Court has stated: "Substantial evidence is more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." Again it has been said that substantial evidence is evidence that affords a substantial basis of fact from which the fact in issue can be reasonably inferred. There must be sufficient evidence to justify, if a trial were to a jury, "a refusal to direct a verdict when the conclusion sought to be drawn from it is one of fact for the jury.

The contemptible group who have been operating the National Labor Relations Board and claiming the right to substitute arbitrary rulings for facts, seem now to have run against a court which hold that facts are facts and that "substantial evidence" must be based upon truth rather than prejudice.

In the summary of the case the court made the following very significant statement:

Under a system of free enterprise, amended by a statute which seeks to attain an equality of contract and of justice through the protection of the employees' right to bargain collectively, we must not destroy those liberties which are distinctive to our type of economy. The employer must be permitted to discharge the inefficient, the irresponsible, the disobedient, the immoral. The petitioner is at liberty, whenever the occasion may arise, to exercise its undoubted right to sever relationship for any cause that seems to it proper save only as a punishment for, or discouragement of, such activities as the act declares permissible.

Mill News

ELKIN, N. C.—The Chatham Mfg. Co. has recently been awarded a contract for delivery of blankets to the United States Army costing $892,000.

COLUMBIA, TENN.—Massachusetts Knitting Mills has installed Reiner "Auto" heelers in their plant in this city, as well as in the Leicester Knitting Mill in Rochdale, Mass.

HICKORY, N. C.—Contracts have been let by the Shuford Hosiery Mills for two additions, one for a local mill and the other for a Granite Falls plant of the company. Work is expected to begin in the next few weeks.

GASTONIA, N. C.—The Flint Mfg. Co. has purchased 16 spinning frames and five cards to be installed in Plant No. 2, to take care of increased demands. The spinning frames bought are Whitin's 1918 B Model, tape driven, with motor on floor.

STATESVILLE, N. C.—New equipment which has been installed in the Statesville Cotton Mills includes combination beam and package dyeing machinery, which was supplied by the Gaston County Dyeing Machine Co., of Stanley, N. C.

HICKORY, N. C.—A contract has been let to Herman Sipe & Co., of Conover, N. C., for the construction of an addition to the plant of the A. A. Shuford Mills Co., in the Highlands section of this city, to measure about 100 x 200 feet in size and to be two stories in height. The company manufactures twine and carpet warps.

LINCOLNTON, N .C.—A charter has recently been issued to Southern Mills, Inc., of this place, to engage in the general textile manufacturing business.

Authorized capital stock is 1,000 shares of no par value stock. Subscribed stock 200 shares by S. M. Butler, W. B. Putnam and M. M. Rudisill, all of Lincolnton.

STAR, N. C.—Star Finishing Co., Inc., with principal office in Star, N. C., has received a charter to manufacture and sell all kinds of hosiery. The authorized capital stock is $25,000, with $1,500 subscribed by C. V. Richardson, G. W. Scott and B. R. Koogler, all of Star.

HILLSBORO, N. C.—The contract for remodeling Eno Cotton Mills' weave shed, at Hillsboro, has been let to John Bonitz, of Greensboro, N. C. No mechanical work is included in the contract. The plans call for the removal of the existing sawtooth roof and replacement with a new flat roof to be approximately 3 feet higher. J. E. Sirrine & Co., of Greenville, S. C., are the engineers. The weave shed is 106 feet by 235 feet. Eno Cotton Mills, known for their combed broadcloths, were incorporated in 1896. S. S. Paine is president.

WAYCROSS, GA.—This city's newest plant, the Conrad Hosiery Co., has begun the manufacture of women's hosiery in a building on Satilla Lane. Oscar S. Conrad, general manager, expects to have the plant in capacity operation within four or five weeks.

GAINESVILLE, GA.—Contracts have been let for the sprinkler and heating systems for the new addition to the Owen-Osborne plant here to Crawford & Slayton Co., of Atlanta. The sprinkler system will include underground mains.

The new building is part of an expansion program to cost about $600,000. Owen-Osborne, Inc., manufactures ladies' full fashioned silk hosiery.

HICKORY, N. C.—Plans are announced here for another hosiery mill for Hickory. C. T. Morrison has secured a building permit to construct a modern mill building to house this new industry, which will be known as the M. & M. Hosiery Co. Mr. Morrison stated that at present he would make no announcement relative to the cost of the new building, etc.

SALEM, VA.—The Salem Full Fashion Hosiery Mill is considering a $65,000 machinery expansion program in the near future, a reliable source has disclosed. An increase in the number of employees at Salem's newest industry would result.

Now operating 13 knitting machines, with three shifts daily, the mills are reported to have ordered five new machines, costing about $13,000 each, for installation at intervals.

MAYSVILLE, KY.—The contract for the dry pipe system of automatic sprinklers to be installed in the new two-story warehouse for the January & Wood Co., now under construction at the Maysville Cotton Mills, was awarded to Grinnell Co., of Cincinnati, according to an announcement by J. E. Sirrine & Co., of Greenville, S. C., consulting and designing engineers. The building is 102 feet by 102 feet, of concrete and brick construction with steel beams, steel pipe columns, steel sash, roll-up doors.

ANNISTON, ALA.—Contract for the Anniston Mfg. Co.'s weave shed extension No. 2, plans for which were prepared by J. E. Sirrine & Co., of Greenville, S. C., went to Daniel Construction Co., Birmingham, Ala.

The extension, which is part of the Anniston Mfg. Co.'s continuous modernization program, will be a one-story building approximately 148 feet by 108 feet, with brick walls, steel sash, steel framing, wooden floors and roof decking, and 20-year tar and gravel roofing, and will enlarge the company's facilities for the manufacture of sheetings, grey drills, twills and osnaburgs.

Early this year F. O. Tyler, long associated with the Anniston Mfg. Co., was elected president and treasurer.

BLUE RIDGE, GA.—Van Raalte Co., Hosiery Division, has recently installed a number of Reiner "Auto" heelers.

SPRAY, N. C.—A contract for blankets amounting to $267,585 has recently been awarded the blanket division of Marshall Field & Co. here.

VALDESE, N. C.—It is announced here that the Blackstone Hosiery Mills, manufacturers of fancy half-hose, has work well under way on the construction of an addition.

The official announced that the need of more storage space and office room necessitated the building of the new structure, which will be two stories, and will measure 26 feet by 54 feet.

THOMASVILLE, N. C.—Maurice Hosiery Mills Co. have awarded a contract to the Miller Construction Co. for construction of two new additions to the plant here.

One addition to the plant will be approximately 30 by 60 feet, while the other will measure 30 by 70 feet, it was stated. Completion of the work is scheduled within 45 days.

BENTON, KY.—Henry F. Turner, Jr., referee in bankruptcy in Paducah, disapproved sale of assets of the defunct Marshall Hosiery Mills, Inc., Benton, Ky., to a group of former employees for $905. Turner said the bid was too low in view of appraisal of the firm's assets at $11,502. The employees had planned operating the mill on a profit-sharing basis.

NEW Equipment, Supplies, Catalogs and Bulletins

New "Tannate" Leather Belting Handbook

"Tannate Watershed Leather Belting" is the name of a new handbook just off the press from J. E. Rhodes & Sons. Thirty pages of 8½x11 booklet, it is well illustrated throughout and contains a wealth of information on leather belting and its application in industry.

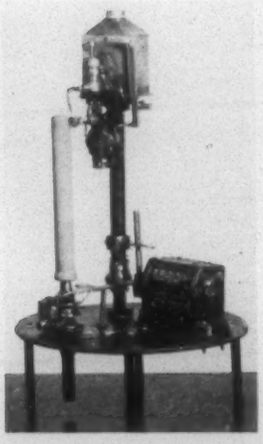
In addition to information as to the qualities, sizes, tensile strength, performance, etc., of Tannate Belting, there is much information that should be of considerable value to anyone concerned with belt drives.

Some of the general information contained in the handbook include such subjects as horsepower ratings for flat leather belting, application of belting to motors and pulleys for best efficiency, installation of Rockwood bases for motors, direction to run belts, calculation of belt length, methods of lapping, cementing belts, belt lacing, information on pulleys of different types, etc.

Four pages are devoted to belt maintenance, suggestions for improving belt drives, the place for modern group and individual drives, and how to order a leather belt. The appendix contains valuable statistical information for figuring drives, horsepower, etc.

Bobbin Painting Machine

D. A. Jolly, who was for many years overseer of weaving at the Cabarrus Mills, Kannapolis, N. C., has invented the bobbin tip painting machine, shown in the cut, and has already booked a number of orders.



The paint is placed in the container at the top and is automatically stirred. It is fed to a brush which, when the spindle is empty, stands at a distance of about two inches from the spindle top.

When the bobbin is pressed down on the spindle, the brush moves over and paints the tip while the bobbin revolves. An interesting feature is that every time the brush comes to rest, it has moved one-quarter of a circle and therefore the next paint is applied at a different place upon the brush.

Mr. Jolly states that, with the machine, it is possible to paint 10,400 bobbin tips in eight hours, which means a considerable saving in labor cost.

"Pontachrome" Fast Red 2RL

A new fast-to-light chrome dyestuff, "Pontachrome" Fast Red 2RL, is announced by the Dyestuffs Division of E. I. du Pont de Nemours & Co. The new dyestuff can be applied to slubbing, loose wool, yarn and piece goods by either the after-chrome or chromate method, according to the announcement. It possesses very good fastness to light, the company says. Light fastness and the intermediate red shade make the dye suitable for shading in the dyeing of upholstery fabrics, men's wear worsteds for suitings and overcoatngs.

The new dyestuff fades evenly without change of hue, dyes levelly, exhausts and penetrates well and is readily soluble, according to the company's announcement. It can be applied in open kettles and other types of mechanical apparatus ordinarily used for chrome colors.

Safe Handling Of Chlorine Charted By Mathieson Alkali

A new revised Chlorine safety chart has recently been prepared by the Mathieson Alkali Works. The chart is neatly and attractively set up in green and black with cuts of the valves used on the three standard types of chlorine containers. The detailed schematic representation and careful labeling of the valve types greatly enhance the value of the chart as a whole.

The essential requirements in the safe handling of liquid chlorine are outlined in the form of 24 suggestions. This subject matter is subdivided under the headings: handling containers, gas masks, chlorine leaks, and first aid measures. The material, while not intended to cover every possible contingency, is considerably more complete than anything of a similar nature available, incorporating as it does new suggestions on the storage of containers, the handling of containers and valves, the stopping of leaks, and the effective use of gas masks.

Mathieson Alkali Works was a pioneer producer of chlorine, and also the active leader in the development and standardization of container equipment. Copies may be obtained by interested parties addressing The Mathieson Alkali Works, Inc., 60 East 42nd St., New York, on their business letterheads.

Preview American Blower's New Industrial Heating Equipment

Special merchandise managers and officials of the American Blower Corp., in a national unit heater sales meeting

in Columbus, O., August 23rd, witnessed a preview of American Blower's new, complete line of industrial heating equipment and made an inspection tour of the corporation's Columbus plant.

C. T. Morse, president, E. W. Petersen, merchandise manager, Ralph Stowell, director of advertising, and 23 of the corporation's merchandise specialists from all parts of the country attended.

The new line, which includes four different types of unit heaters, 106 sizes and a complete range of capacities, was introduced, and a complete new sales and advertising plan revealed.

"Introduction of a new vertical type heater for ceiling mounting, to round-out the complete American Blower unit heater line which also includes three improved types for floor and wall mounting, is of tremendous importance in solving commercial and industrial heating problems," Morse asserted.

"Contractors are now able to give their customers job-measured heating, with a type, size and capacity of unit especially designed for each particular job. This greatly simplifies the problem of selecting heating equipment that will perform effectively, efficiently and quietly, and eliminates any necessity to make a compromise choice of units designed for some other type of room or building. Job-measured heating not only is a protection against business losses or production slumps during cold weather, but reduces unnecessary fuel waste."

Mathieson Building Plant To Produce Chlorite

A new plant, costing approximately $400,000, is being built by Mathieson Alkali Works, Inc., at Niagara Falls, to produce sodium chlorite, the newly-developed chemical that promises to have wide use in the wood pulp, textile, and other industries.

Sodium chlorite, though long known as a laboratory chemical, was discovered by the Mathieson research organization to have special properties that make it valuable for use in many important industrial processes, according to this announcement.

In the textile field, it is said to permit the scouring and bleaching of cotton and rayon in a single operation, instead of in two, and it also makes possible the simplificattion of other textile finishing operations.

Pressure Reducing and Desuperheating Control

Pressure reducing and desuperheating control of the air operated type is illustrated and explained in a new bulletin No. 107-A issued by Bailey Meter Co., Cleveland, Ohio. The bulletin includes diagrammatic arrangements, installation photographs and detailed photos of individual control units. Chart records show the operation of typical Bailey pressure reducing and desuperheating systems. A partial list of installations includes pertinent data for each application listed.

C. P. Gulick Appointed To Resolutions Committee of N. A. M.

Appointment of C. P. Gulick, president and chairman of the board of the National Oil Products Co., Harrison, N. J., to the Resolutions Committee and the Sponsoring Committee of the National Association of Manufacturers has been announced by H. W. Prentis, president of N.A.M.

In the Resolutions Committee post, Mr. Gulick will be called upon to assist in the preparation of the 1940 Platform of Industry. The Sponsoring Committee is designed to rally support for private enterprise.

Mr. Gulick is also a member of the Development Committee, Industrial Practices Committee and Public Relations Committee of the N. A. M.

Cotton Goods Markets

New York.—Following the buying movement of the week of September 6th business in grey goods settled down to a steadier and lighter tone in order for mills and buyers to better appraise the situation, and take stock of themselves.

The buying movement that was set off in the opening days of September accounted for the sale of somewhere in the neighborhood of 200,000,000 yards of assorted grey cloths before it began to lose momentum, with print cloth sales estimated at about 110,000,000 yards, or about five times the current output of the mills. Large scale orders were also placed on sheetings, twills, carded and combed broadcloths, drills, tobacco cloths, osnaburgs, ducks and wide industrial specialties.

On practically all of the active items, prices have risen ¼c to ⅜c a yard, bringing many depressed constructions within striking distance of cost levels for the first time since last March. Most merchants expect that demand will continue active over the next few weeks for the reason that finished goods are also active and many buyers have allowed their stocks to dwindle to the point where they must replenish in order to remain on a competitive basis with converters and other users who have been accumulating supplies over the last ten days. Meanwhile, deliveries on many staples have tightened and spot supplies in the hands of mills have been transferred to the distributive trades. From the standpoint of ratio of unfilled orders to stocks, mills are almost in as good a position as they were in mid-September last year following the war buying boom.

Trading in coarse yarn gray goods markets during the week following the buying spurt was again spotty. Volume was far below the daily average for the previous week but this was to be expected since prices are higher and large numbers of buyers have covered the bulk of their needs for the next 30 to 60 days.

Some merchants attributed the let-down to the less favorable news from Europe but the majority were inclined to regard the let-down as nothing more than the breathing spell which usually follows a week to two weeks of active trading and rising prices.

Prices were strong throughout and all efforts to obtain concessions were fruitless. That distributors look for a continuance of strong prices was indicated by the scarcity of second-out feelers for offerings and found that they were unable to obtain them at less than 1-16c under the first hand market. The lots available were small and did not include the best makes.

Cotton Yarn Markets

Philadelphia.—Price advances have continued recently in scattered fashion and some counts that previously were advanced tentatively about ten days ago have again been moved up, with suppliers stating that sales have improved and most of the spinners are now actively seeking to establish rates that will show them a profit. Some of the larger sources have been encouraged by substantial orders for finished goods and this is reflected in the way their yarn departments have been marking up quotations. On standard constructions of various sorts, it is reported, a good many of the Southern weaving mills have become very busy, and this is having a stimulating effect on sale yarn spinners in the South. Also, the Government's cotton report is expected by some yarn men to cause a change in trend of cotton market quotations.

There were some mixed reports as to whether or not the big business of the week of September 6th carried over into the week of September 13th, but suppliers were pretty much agreed that the momentum is carrying through to some degree, and would probably make gains toward the end of the week.

In some cases, buyers are said to have dropped month-to-month buying policies, and reports tell of orders being put through to the end of the year.

Other centers told of some slackening off, because of the price advances, and the fact that the market has stiffened considerably over a week ago. Some sellers say that Government contract anticipation has caused some buyers to cover, but not to the full extent of their needs. These quarters feel that buyers will be back for more yarn at the end of the week, because of their belief that prices will hold and may even go higher.

Several mills are said to have withdrawn from the market during the week.

Recent demand is said to have continued good on both carded and combed styles, particularly those in the 10s to 24s. The sales of the 30s and 34s has fallen off, as is natural at this time, when mills are concerned strictly with the heavyweight yarns.

Several centers reported that specifications are continuing to come in strong, the gains having been started when the market strengthened.

Index To Advertisers

Where a — appears opposite a name it indicates that the advertisement does not appear in this issue.

Murchison To Address September 17th Session Of Carded Yarn Group

Charlotte, N. C.—The annual meeting of the Carded Yarn Group will be held at the Charlotte Hotel on September 17th with Dr. Claudius T. Murchison, of New York, president of the Cotton-Textile Institute, Inc., as principal speaker, according to announcement made here by Owen Fitzsimons, secretary of the organization.

Dr. Murchison will speak on conditions in Washington and the effect of legislation on the carded yarn industry. He will also discuss the prospects of the industry and will tell of the progress being made in the industry-wide program for added domestic consumption of cotton.

Cox & Fuller Issue Rayon Denier Chart

Cox & Fuller, textile specialists, have issued a new chart giving the denier and filament numbers of American commercial rayon yarns. These are listed according to process. Brand names as well as those of producers are listed.

The trend toward finer deniers is demonstrated by the fact that all save two small producers are listed as making 100 denier yarns. In the viscose field, American Viscose Corp., E. I. du Pont de Nemours & Co., Industrial Rayon Corp., American Enka Corp., and North American Rayon Corp. offer 75 denier yarns. Seventy-five denier acetate yarns are offered by American Viscose Corp., Du Pont, Celanese Corp. of America and Tennessee Eastman Corp. American Bemberg Corp. produces 75 denier cuprammonium yarn.

Fifty denier yarn is offered by American Viscose Corp., Du Pont, Industrial Enka, North American and Tubize Chatillon. Forty-five denier acetate yarn is offered by Viscose, Celanese and Tennessee Eastman Corp.

The two finest counts are made by American Bemberg Corp., which offers both 30 and 40 denier cuprammonium yarns.

Cotton Products Export Program

(*Continued from Page 21*)

The foregoing rates supersede those effective 12:01 A. M., E. S. T., July 1, 1940, and will continue in effect until other rates are effective or until the program is terminated.

Notice of delivery for export, sale for export, mailing to an export destination, or export, as provided in Paragraph 4 of said announcement by the Secretary of Agriculture in connection with the Cotton Products Export Program (fiscal year 1941), shall be given to an agent of the Secretary of Agriculture designated for that purpose, not later than the business date next after the day of such delivery for export, sale for export, mailing to an export destination, or export. Written declaration of delivery for export, sale for export, mailing to an export destination, or export, in a form provided for that purpose, should be forwarded to such agent of the Secretary not later than three business days thereafter.

Rayon Manufacturer Establishes Textile Manufacturing Unit

(*Continued from Page 24*)

partment, incorporate features which are still new to the industry.

Facilities in the dyeing and finishing department provide for the dyeing and finishing of rayon in its various forms from fiber to fabric. They include equipment for dyeing and finishing raw stock stock, skeins, packages, hosiery, and also for fabric dyeing and finishing on various types of machinery.

The knitting machinery is comprehensive enough to cover both present rayon uses and new developments. This equipment includes a high speed warp knitter, a new model magazine creel and warper, and full fashioned hosiery machines. Equipment is also provided for circular knitting of underwear and hosiery fabrics and for looping and seaming.

Unusual facilities are provided for atmosphere control. Much of the research depends on control of humidity in the atmosphere, and a unit for dehumidification as well as machinery for raising the relative humidity. Each department where atmosphere conditions are important is partitioned off from the others to aid atmosphere control.

Mill men interested in the handling of rayon are welcome at the textile unit. They may find that it will supplement their own mill activities and provide an additional proving ground.

E. H. Jacobs Mfg. Co. Ships Order To Philippines

E. H. Jacobs Mfg. Co., of Charlotte, has just filled an order of a Manila textile firm for textile machinery, another evidence that many of the orders for this type of machinery, which until the war went to German and British companies, are now coming to the United States.

W. I. Bullard, president of E. H. Jacobs Mfg. Co., announced the sale recently. Twenty cases of mill parts, packed for export, already have been shipped to the firm

in the Philippines. Mr. Bullard said the company previously made its purchases from German firms.

Rayon Deliveries Show Gains

Rayon yarn shipments for the first eight months this year totaled 254,200,000 pounds, an increase of 11 per cent over the 228,100,000 pounds taken by domestic mills during the corresponding 1939 period. Commenting on the increased mill takings this year, the *Rayon Organon*, semi-official publication of the industry, points out that an increase in production of about 23 per cent was necessary to fill the increased orders, since 20,000,000 pounds of the total shipped during the first eight months of 1939 came from stock rather than from actual production and first of year stocks this year were abnormally low.

Deliveries of rayon filament yarns to domestic mills in August amounted to 35,400,000 pounds, as compared with 32,700,000 pounds in July, according to the *Organon*. Producers' stocks of yarn at the end of August totaled 9,300,000 pounds, as compared with 11,200,000 pounds in July. Thus it will be seen that filament rayon yarn continues in a tight supply situation.

"Imports of rayon staple fiber into the United States in July amounted to only 387,484 pounds," states the *Organon*. "This figure compares with 658,659 pounds in June and 3,490,274 pounds in July a year ago. With the exception of November, 1937, this July figure is the lowest monthly total since March, 1936. Staple fiber imports for the first seven months of this year amounted to 12,669,467 pounds, as compared with 24,463,572 pounds in the 1939 period, a decrease of 48 per cent.

"Of this July import figure of 387,484 pounds only 10,000 pounds came in from the United Kingdom for immediate consumptiton. The 110,314 pounds of German staple, the 84,032 pounds of Italian staple and the 183,138 pounds of Japanese staple, listed as imports, were withdrawn from United States bonded warehouses."

Atlantic Rayon Net in Year $88,387

Atlantic Rayon Corp. reports a net loss of $47,373, after all charges, for the three months ended June 30, 1940, as compared with a net profit of $13,316 for the same period of last year.

For the 12 months ended June 30, 1940, the firm reports a net profit of $88,387 as compared to $155,592 for the year ended June 30, 1939.

Net sales for the three-month period ended June 30, 1940, were $1,540,304. Net loss from operations was $52,721. During the same period in 1939 net sales were $1,485,282, and net profit on operations were $15,932.

Textile Technologists Meet October 1st

The American Association of Textile Technologists announces that arrangements are being completed for a symposium on "Textile Preparedness for National Defense." This session will be held at the Hotel Commodore, New York City, on October 1, 1940, at 4 P. M., and will be followed by dinner and speeches.

The partial program to date includes Arthur Besse, president of the National Association of Wool Manufacturers, and until recently with the National Defense Ad-

visory Committee. Mr. Besse's topic is to be announced later. Lieut.-Col. George F. Spann, Q. M. C., procurement planning officer of the War Department's New York general depot, will speak on "How Textile Mills Can Fulfill Government Contracts Most Efficiently;" Lieut. (jg) Lawrence Smith, S. C., U. S. N., of the Brooklyn Naval clothing depot, will discuss "Textiles Used in Navy Uniforms," and Capt. A. Dennis, of the War Department's Philadelphia quartermaster depot, will discuss "Textiles Used in Army Uniforms."

In view of the far-reaching effects on the textile industry of the program of industrial preparedness and because of the importance of the speakers, the American Association of Textile Technologists invites all manufacturers of textiles to apply at an early date for reservations for the meeting and dinner by writing to the Association's secretary, Miss Bernice S. Bronner, Room 604, 959 Eighth Ave., New York City.

Book Tells Story Of James W. Cannon

Charlotte, N. C.—"Cabarrus Reborn," the history of Cabarrus County and of Kannapolis and its place in the textile industry, is a new book to be published late in September.

For the first time, the authors say, the story of the late James W. Cannon, founder of the Cannon Mills Co., will be told. They will go into the conditions which existed in this part of the South at the end of the Civil War, and will discuss the part played by Mr. Cannon's genius in the rebuilding of Cabarrus County and the founding and development of Kannapolis.

The book is 130 pages long and is to be published by the Kingsport Press of Kingsport, Tenn. Its authors are Jazzy Moore, publisher, and T. H. Wingate, editor of the *Kannapolis Independent*.

"Mill Trust" Case Set for October Term Of Court

Greenville, S. C.—Two Federal agents have returned to Washington with a voluminous package of records kept during the 1939 summer print cloth production control program, in the wake of which five South Carolina textile leaders were charged with violating the Sherman Anti-Trust Act.

The defendants voluntarily turned over to Messrs. Cook and Lynch, of the Anti-Trust Division of the Department of Justice, all correspondence and data which might have a possible bearing on the case. Dr. W. P. Jacobs, of Clinton, chairman of the Print Cloth Group, submitted full figures and facts on production and sales during the period covered by the output control plan.

Frank Watkins, of Anderson, general counsel for the Cotton Manufacturers' Association of South Carolina, who will be associated with several other attorneys in the defense of the case, said he was prepared to go to trial at the Greenville Federal Court term opening October 14th under Judge C. C. Wyche, of Spartanburg. District Attorney Oscar Doyle said he, too, would be ready at that time, adding that on his end there were no new developments in the action.

The Government has indicated it will lay considerable stress on a Supreme Court ruling in a case which is re-

garded as similar, in some aspects, to the print cloth action. (On May 6th, the high court upheld a decision by the Federal District Court, at Madison, Wis., holding that 12 major oil companies and five individuals had violated the Sherman Act by conspiring to raise the price of gasoline sold in 10 Midwestern States.)

Whether the agreement between print cloth mills to limit production was in itself illegal is expected to be one of the major questions of the trial here. Mr. Doyle has previously indicated the case would require some four days to a week with considerable of the testimony on economics.

Defendants in the case are J. E. Sirrine, Fred W. Symmes, Ellison S. McKissick, John B. Harris and David W. Anderson, members of the committee in charge of the production control program. It was understood these men volunteered to be defendants rather than have every participating mill indicted.

The Federal bill of information filed against the textile leaders alleged that they, as a committee in charge, unlawfully engaged in a combination to restrain trade by inducing print cloth mills representing not less than 95 per cent of all looms operating in the United States on print cloths of 24 certain constructions to take part in the program.

The information further alleged the participating plants were requested to furnish and all or some did furnish at regular intervals to the committee information on production, shipment, sale and inventories of the constructions referred to. The Government also averred that the committee terminated the program earlier than the date previously announced to the public and sought to shroud this termination in secrecy.

Manhattan Rubber Buys Brighton Mills Property

To provide needed additional space for storage and steadily expanding manufacturing facilities, Raybestos-Manhattan, Inc., has purchased the Brighton Mills plant adjacent to the main plant of the Manhattan Rubber Mfg. Division, at Passaic, N. J., according to an announcement made by F. L. Curtis, general manager.

The property includes approximately five and one-half acres on which are buildings with 240,000 square feet of floor space. It is situated on the Delaware, Lackawanna & Western Railroad.

The development of new rubber products and the wider use of rubber goods by several major industries has resulted in a steady growth of Manhattan's business, necessitating additional manufacturing and storage space.

New Textile Book

"Textile Testing," by John H. Shinkle, published by Chemical Publishing Co., Inc., New York. 267 pages, illustrated, $3.

This book, which covers the entire field of textile testing, is divided roughly into three parts, physical testing, chemical testing and microscopic testing. The author, who is assistant professor of textile chemistry at Lowell Textile Institute, has made no attempt to deal with the subject in popular terms, but has written a scientific work for those actually engaged in testing or studying the procedures.

An important consideration in this book is the fact that the author has brought it up to date with reference to some of the newer textiles, such as casein fiber and nylon. Also with each chapter is a complete bibleography, something which is not too common in textile books, too many of which liberally borrow the works of others and contribute very little that is new. The bibleography in this book should be an excellent aid in permitting of further study along various lines in textiles.

An interesting feature of the approach is a method shown for the statistical analysis of tests so as to properly evaluate the samplings. Being at the beginning of the book it establishes a basis for a mathematical evaluation of the various tests described.

Classified Department

DuPont May Build Plant Near Martinsville, Va.

Martinsville, Va.—Martinsville is being strongly considered as the site of a large plant for the manufacture of synthetic yarn by the E. I. duPont de Nemours & Co., of Wilmington, Del., it was announced here early in September.

In a formal statement issued at Wilmington the duPont firm confirmed rumors current here for the past several weeks that it was seriously considering Martinsville as the site of a new plant.

The statement made public said:

"E. I. duPont de Nemours & Co. has taken options on two parcels of land totaling 487 acres, two miles southwest of Martinsville and bordering on Smith's River. Study is now being made of the land and water to determine its suitability as a site for a plant for the manufacture of synthetic yarn."

Company officials at Wilmington have refused to amplify their statement, add comment of any kind or predict when a definite decision would be reached as to the location of the plant in Martinsville. It was understood here, however, that it might be as long as two months before this would be definitely known.

One of the contingencies bearing upon the ultimate location of the plant on the optioned site is the construction of a new road into the property, and the bridging of Smith's River. The Henry County Board of Supervisors and the City Council of Martinsville have already indorsed the highway project, while the State Highway Commission, meeting in Richmond, was expected to give the project favorable consideration.

Montgomery Ward's Half Year Earnings $10,274,454

Chicago, Ill.—Montgomery Ward & Co. practically equalled its record earning figure of last year in the first half of the 1940 fiscal year, net profit for the six months ended July 31st being $10,274,454, compared with $10,315,808 last year. This is after allowances for regular Federal taxes, but President Sewell L. Avery tells stockholders that, based on the bill passed by the House August 29th, the proposed excess profits tax would reduce profits for the half year by about $1,750,000.

The half year profit equals $1.83 per common share, against $1.84 last year.

Erlanger Cotton Mills Name Valentine Agent

The Erlanger Cotton Mills Co., of Lexington, N. C., have announced that their product will be sold through J. W. Valentine Co., Inc., of 40 Worth street, New York City. Norman G. Meyers, president of the Langerre Sales Co., is associated with the Valentine organization in an important sales executive capacity.

The Erlanger Cotton Mills have the largest mill organization in Lexington, N. C., and have been well known for a number of years for fancy cotton goods and, more lately, spun rayon fabrics.

The mills, having more than 1,600 looms, have recently started an extensive modernization program, including not only the most modern high speed looms but also the latest in preparatory equipment.

Two Hundred Years of the Cotton Spinning Machine

(*Continued from Page 14*)

long stapled cottons from Brazil, Egypt and the West Indies were hence not used in England at the time of Lewis Paul. It may be of interest to state here, that the imports of cotton to England was in 1730 only about 1½ million lbs. and remained practically at the same quantity until 1741 when 1,645,031 lbs. were imported.

Drafting Function of Rollers

The thinning out of the textile material to a definite fineness by means of rollers and pairs of rollers placed one behind each other, with different surface speeds, was described by Lewis Paul as follows: ". . . As the prepared mass passes regularly through or betwixt these rowlers, cillinders, or cones, a succession of other rowlers, cillinders, or cones, moving proportionately faster than the first, draw the rope, thread, or sliver into any degree of fineness which may be required. . . ." This arrangement of different pairs of rollers for attenuating the material corresponds in principle to the drawing roller settings of the present day.

The construction of the rollers has of course changed since the time of Lewis Paul. Lewis Paul employed for the bottom rollers wooden covered iron bars with longitudinal flutes and at the top wooden rollers covered with leather. Today the bottom rollers are made entirely of steel, also fluted lengthwise; the top rollers as a rule are covered with flannel and leather to ensure a good grip, the material for the solid part being iron. But in principle the rollers invented by Lewis Paul are the same as those in use today.

Controversy As To the Real Inventor

It has been said that Lewis Paul was not the actual inventor of the drawing rollers but his associate, John Wyatt. It is extremely difficult to establish which of these men first conceived the idea of employing drawing rollers on the spinning wheel.

It can be assumed with much probability that Lewis Paul was the inventor and not John Wyatt. Then the patent and also the specification of 1738 were drawn up in the name of Lewis Paul and in the specification of the 20th July, 1738, John Wyatt clearly signs ". . . in witness whereof . . ." Further, Lewis Paul has been the technical manager of the business in Birmingham and John Wyatt the commercial manager, occupying himself with the selling of yarns in London. The manuscript book of John Wyatt, "A systematical Essay on the Business of Spinning," is not so much a proof of the technical capacity of its author, than to his defective knowledge of technical proceedings. Lewis Paul furthermore patented other machines in 1748 and 1758 for cotton manufacture and hence proved his identity as an inventor several times.

The general objections against Lewis Paul as the inventor of the drawing rollers, are based mainly on a letter of one of the sons of John Wyatt and is no real proof as to the statements that John Wyatt might have been the inventor. Others tried to prove that the invention to spin with drawing rollers was neither made by Lewis Paul nor by John Wyatt, but only by Richard Arkwright thirty years later.

Such objections as were made tried to demonstrate, that based on the specification of 1738 the invention of Lewis Paul was not even possible from the technical point of view and ". . . merely a fine phrensy of imagination . . ." and that with the invention of Lewis Paul, the thread would be ". . . instantly torn to atoms . . ." Dr. Ure comes to this conclusion from the part of the Lewis Paul's specification referring to an alternative possibility of twisting, that is giving simultaneously some twist to the thread during drafting and which seemed, from the theoretical and technical standpoint, quite impossible to him.

As to the alternative twisting, Lewis Paul wrote in his specification, ". . . sometimes these successive rowlers, cillinders, or cones (but not the first), have another rotation besides that which diminishes the thread, yarn, or worsted (viz.): that they give it a small degree of twist betwixt each pair, by means of the thread itself passing through the axis and center of that rotation . . ." Obviously the obscurity lies in the word "rotation." Perhaps Lewis Paul meant with reference to "another rotation" simply "another movement" and this perhaps is the meaning of a to and fro movement of some rollers, similarly to the movement of some rollers in the spinning cards for the worsted industry. This assumption is justified as already Lewis Paul had on a card, patented at the time, rollers that had a to and fro motion in the direction of the axis so as to increase the carding effect.

Alternative of Drafting

There is no doubt that the working of the relative short and unripe cotton and the rather defective preliminary cleaning and opening operations rendered the process of spinning with drawing rollers at the time of Lewis Paul difficult. Further, the implements used for spinning, the flyer spindle and especially the winding devices, were very crude in respect to their construction and driving, and produced a heavy load and tension on the thread.

Hence it is no surprise that at the first time there were many obstacles to bring the drawing rollers of Lewis Paul into general use. Hence, in many cases, it must have been better to renounce the application of drawing rollers for drafting and to use the roller pairs only for the regular supply and delivery.

But for such difficulties Lewis Paul found a clever solution, even when taking his first patent in 1738. In that patent he described in lieu of the previously suggested drafting with rollers placed behind each other, an alternate possibility of drafting between the delivery rollers and the spindles or bobbins. He says in this respect, ". . . In some other cases only the first pair of rowlers, cillinders, or cones are used, and then the bobbin, spool, or quill upon which the thread, yarn, or worsted is spun is so contrived as to draw faster than the first rowlers, cillinders, or cones give, and in such proportion as the first mass, rope, or sliver is proposed to be diminished. . . ." This system of drafting is also still in use today on mules spinning, *e.g.*, wool and corresponds in principle to the carriage draft in the three line roller mules for cotton.

Improvements for Drafting

For the sake of completeness, it may be mentioned that the invention of Lewis Paul in respect of the use of roller pairs for drafting the textile material, has been improved

later by the employment of three, sometimes four pair of rollers instead of only two pairs as in the time of Lewis Paul. It was thus possible to draft more gradually, a preliminary small drafting between the back and middle pair loosened the slightly twisted roving and broke it up—hence break draft—and one or two main drafts between the front roller pair and the middle pair or pairs made the final drafting.

Further, the middle roller was altered so as to grip the material passing between them only in a relative way and to allow the long fibres to pass through without injury. Hence the rollers could be set closer and within the staple length; the drafting was thus controlled more positively and it was possible to apply higher drafts. Hence, high-drafting.

Finally the middle roller pair has been changed so as to produce by the use of leather tubes not merely a pressure line, but a pressure surface. This system—*e.g.*, Casablancas—was especially favorable for the spinning and drafting of short and irregular staple material, the latter being the case in nearly all natural grown fibres, such as wool, cotton, etc.

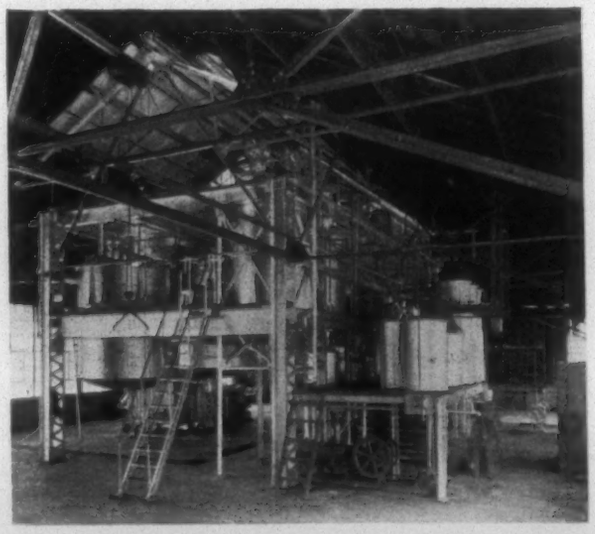
How far it will be possible in the future, for the cut rayon staple fibres, to revert to the original two and three-line rollers, experience will demonstrate. The staple of cut rayon staple fibres is practically uniform and the reasons that lead years ago to the complicated mechanism of through-drafting devices, disappeared. Under this prospect the invention of Lewis Paul in 1738 might be valued once again in the original sense.

(*Continued next issue*)

Changes At Morton Chemical Company

(*Continued from Page 18*)

sizings. New products just being placed on the market include Morpelwets N and O, these said to be two new very fast primary wetting agents for use in neutral, acid, or alkaline baths; Morpelwet LC, said to be a very fast new rewetting agent for sanforizing or dyeing on gray



Front view of plant, showing vacuum distillation, sulphonation, acid recovery columns and other equipment.

bottom; Morpeltex AL and C, two new anion active finishing compounds; and Morpeltex ADS and TS, two new reportedly highly efficient synthetic detergents in dry

form to sell at low prices. The company is also working on a number of other new products, including a line of finishing oils said to have extreme softening power.

Erecting, Overhauling and Fixing Looms

(*Continued from Page 16*)

Secure a thin board, indicated by A in Figure 22, about 1x3 inches, about 12 inches longer than the depth of the loom from the whip roll to the take-up roll; then cut the various gauges shown out of the same material. Then cut the adjusting slots in them, indicated by 9 in Figure 22, and attach them to the cross board with bolts and thumb screws indicated by 8 in Figure 22. Indicated by the other numbers are the following: 1, the whip roll; 2, whip roll shaft; 3, stop motion girt; 4, the crank shaft; 5, the lay; 6, the take-up roll; and 7, the breast beam. Nos. 4 and 7 are, of course, fixed, or stationary parts, and are used for resting positions for the gauge.

First, determine the exact settings desired for the whip roll, stop motion girt, and the take-up roll; then set the gauge on the loom as near the end of the breast beam as possible, and tighten the resting posts, 4 and 7 marked X, securely. Then move the other gauge pieces into position against the whip roll, stop motion girt, lay, and take-up roll, and tighten them securely.

Now that you have the set-up for the settings desired, move gauge to the opposite end of the loom and make settings there. By using a gauge like this one will be able to check easily and quickly any parts that might have slipped out of position. You will notice that the gauge piece covering the stop motion girt is made so as to allow it to extend down each side of the girt a short ways. This will enable one to keep the girt lined straight as well as set it the proper height. The lay gauge piece is not really essential, but by using it in checking over one will sometimes find a lay a trifle low on account of a worn rocker shaft or a worn or loose rocker shaft bearing.

It looks much better to have all the whip rolls, stop motion girts, and take-up rolls uniformly set, and it will also improve the actual running of the work, improve the face on the cloth, and decrease seconds caused from overshots, warp breakage, pickouts, etc.

Comments

Some weave room men seem to minimize, and some disregard altogether, the real importance of keeping an absolutely accurate setting on the whip roll, stop motion girt, and the take-up roll, but this is vitally important and necessary in order to obtain the best results in good running weaving and a high quality finished fabric. Unless these parts are properly adjusted it is impossible to get an even pull, or tension, on the warp yarn from end to end, or from selvage, and otherwise one will have slack warp threads resulting in overshots, undershots, pickouts, excessive warp yarn breakage, slack or pucker sided cloth, and an uneven face or cover on the cloth. There are other objections, but the ones given should be impressive. I have seen weave rooms running on difficult fabrics, running badly and turning out poor quality cloth, transformed into good running, high quality production by merely adjusting the above-mentioned parts along with the proper adjustment of the harness, as previously mentioned.

later by the employment of three, sometimes four pair of rollers instead of only two pairs as in the time of Lewis Paul. It was thus possible to draft more gradually, a preliminary small drafting between the back and middle pair loosened the slightly twisted roving and broke it up—hence break draft—and one or two main drafts between the front roller pair and the middle pair or pairs made the final drafting.

Further, the middle roller was altered so as to grip the material passing between them only in a relative way and to allow the long fibres to pass through without injury. Hence the rollers could be set closer and within the staple length; the drafting was thus controlled more positively and it was possible to apply higher drafts. Hence, high-drafting.

Finally the middle roller pair has been changed so as to produce by the use of leather tubes not merely a pressure line, but a pressure surface. This system—*e.g.*, Casablancas—was especially favorable for the spinning and drafting of short and irregular staple material, the latter being the case in nearly all natural grown fibres, such as wool, cotton, etc.

How far it will be possible in the future, for the cut rayon staple fibres, to revert to the original two and three-line rollers, experience will demonstrate. The staple of cut rayon staple fibres is practically uniform and the reasons that lead years ago to the complicated mechanism of through-drafting devices, disappeared. Under this prospect the invention of Lewis Paul in 1738 might be valued once again in the original sense.

(*Continued next issue*)

Changes At Morton Chemical Company

(*Continued from Page 18*)

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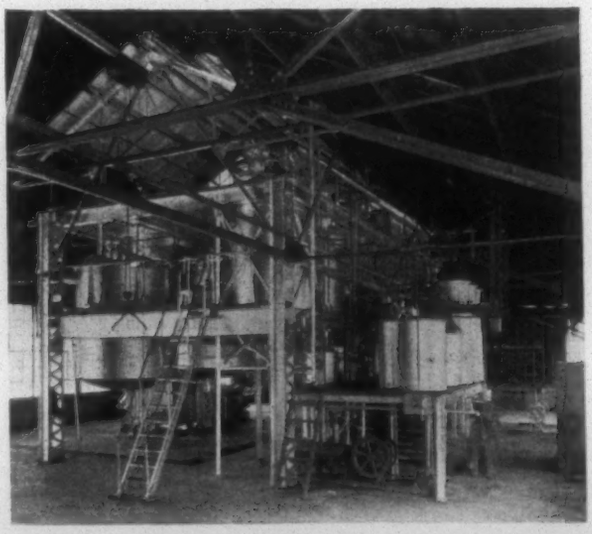

Front view of plant, showing vacuum distillation, sulphonation, acid recovery columns and other equipment.

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Kannapolis Building Program To Result in Model Town

A long-range program of transforming the business section of Kannapolis into several streets marked by the beauty of Colonial architecture and showing the results of careful planning was outlined recently by Charles A. Cannon, president of the Cannon Mills Co., to Mrs. Hazel Trotter, *Charlotte Observer* staff writer.

Although Mr. Cannon said he was unable to estimate the amount of money which will be spent on this program, it is easy to see that the costs will run into several million dollars before the extensive plans have been carried to completion.

The history of this development goes back to Mr. Cannon's visits to Williamsburg, Va., and his being delighted —as are most Americans—with what has been accomplished there. Mr. Cannon became interested in the possibility of making Kannapolis more attractive and employed C. E. Swanson Associates of Chicago, Ill., to make a complete survey of the city's business section as it was at that time and to "lay out" a business section according to this concern's idea of how it might and should be developed.

Outlines Extensive Program

The result is a complete plan which includes remodeling of all the buildings then in use and drawing of structures which are to be built for Kannapolis business as demands of its 25,000 population make them necessary.

In line with this plan, work is going forward on new fronts for the structures which are occupied and all new buildings are being erected along architectural plans that are either Colonial or are designed to harmonize with the general plan.

Several streets are included in the plan. Most of the improvement already made on old buildings has been on Main street on the west side. Other streets in the business section include A street, B street, West avenue, First street, Oak, Chestnut, and Juniper streets. New entrances will be built at the rear of all stores on Railroad avenue, thus giving to the persons who pass through Kannapolis on trains an attractive view of the city. At the present, these passengers look into the backs of all these buildings and in most cases see nothing but brick walls.

Work Is Under way

Work is either under way or will begin soon on a number of new business structures, Mr. Cannon said. Three new buildings to serve as super-markets are completed. A new theater building will be ready for opening this fall. A new store for the Belk Co. will be built on Main street and the Penney Co. will open in a remodeled building on October 1st. An automobile row is being developed. Oak, Chestnut, and Juniper streets are being widened to take care of developing business needs. All of the remodeled stores and the new buildings, whether they be garages or large store buildings, are in the general architectaural plan.

Combines Beauty With Business

The idea back of the development program, Mr. Cannon explained, is to provide in Kannapolis not only all types of business needed to serve its population but also

to provide a business section with an appearance that will eliminate all "boxy" type buildings and will present a really attractive and beautiful scene.

One of the examples of the type of architecture being stressed is the new Young Men's Christian Association for which plans were drawn by Norman Pease, of Charlotte. The Kannapolis Y. M. C. A., with its 13,000 members, has the distinction of having the largest membership in any one building in the world.

When Mr. Cannon first began to study city planning with the idea of improving Kannapolis, he learned that the only two towns in the country that had really attempted such a large scale program were Williamsburg and Princeton, N. J. The story of Williamsburg's success is well known, but Princeton, which is owned by so many persons, was not able to do very much. With the Cannon Mills Co. owning most of the town of Kannapolis, it was believed that something could be done and, although he cannot say when the remodeling of present buildings will be completed, Mr. Cannon feels that as the months go by he will be able to see real and satisfying results from the program that is now under way.

Long Range Program

The work is to go along in a rather unhurried fashion, he explained. As new leases are made or buildings are increased in size, the new fronts to suit the general architectural type will be built. All new buildings will be planned in this style and thus the program will progress until Kannapolis is no longer like "Topsy" that "just growed" but is a city that shows evidence of intelligent and artistic planning.

New construction in the mill proper is also planned. Contract will be awarded soon on a three-story addition to be erected to the present mill office. This additional office space is made necessary by crowded conditions, Mr. Cannon said. The addition will be of reinforced concrete construction and will be ready for occupancy by next spring.

While the business section is being remade to catch the spirit of early America, the interiors of the Cannon Mills Co. plants are undergoing some changes to bring exactly the opposite results. Mr. Cannon said that a mill has to be in the midst of a modernizing program all the time and can never stop its efforts to have the latest equipment. In the numerous units of the Cannon mills, modernization has been going on for the last several years until all branches are equipped with the newest machinery.

Group Medical Care Available To Erwin Cotton Mill Employees

Durham, N. C.—Group medical care including hospitalization, medical and surgical services, has been made available to approximately 5,000 employees of the Erwin Cotton Mills. Those covered will pay weekly premiums.

A newly organized non-profit corporation, the Medical Service Association will provide the new service. The Erwin Mills, however, has no financial interest in the corporation. The plan will cover Erwin plants in Durham, Erwin and Cooleemee.

Nazis Display New Spinning Device At Leipsig Fair

The German dye trust placed on display at the famed Leipsig Fair a spinning device which trust officials hailed as "a sensation which will revolutionize the textile industry," and which they said would be of great importance to Germany's war-time production.

The new machine, called the "vistra-spinnlunte," is designed to simplify the spinning of cotton. Trust officials said this invention, together with the already-publicized "vistry-spinnband," an aid in long-fiber spinning, would usher in a "new epoch in the textile industry."

The new cotton mechanism cuts the various fibers in uniform and desired lengths and lay down the staple in orderly fashion, eliminating the necessity of various preliminary operations.

Trust officials said the "spinnlunte," the outcome of ten years of experimentation, had attracted interest only recently because of the war-time desirability of saving man-power, materials, iron, lighting, power and space and of increasing production.

They explained that the new machine, by doing the work of several other devices, will economize on factory space, and claimed it will reduce spinning costs and produce a firmer, glossier yarn.

They described the machine as "very expensive but not so expensive as the total cost of all the other machines it will replace." The officials said details of the machine's cost had not yet been worked out because large-scale production has not started but predicted it would be sufficently low to encourage replacements abroad as well as in Germany.

Armstrong Reports $2,114,655 Profit

A net income of $2,114,655 is reported by the Armstrong Cork Co. for the first six months of 1940, equivalent to $1.42 per share of common stock, compared with a first-half net of $1,520,153 a year ago, or $1 per common stock share. All figures are based on sales volume in the United States, the company declares. Earnings of foreign subsidiaries are reported separately but are not combined with domestic income.

According to H. W. Prentis, Jr., Armstrong president, the company's stocks of raw materials in the United States are adequate and shipments from foreign sources are being received regularly. He has pointed out to stockholders that unless Portugal or Spain become involved in war, it is believed that shipments of work will continue with "reasonable regularity." It is added, however, that the importance of cork has diminished with the gradual expansion of the company into new fields of business. "Although still essential to certain products," Mr. Prentis explained, "cork represented in 1939, for example, but 15.5 per cent of the total dollar value of all the raw materials purchased by the company."

The company's business volume in the United States amounted to $27,503,878 in the first six months of 1940 as compared with $23,087,607 in the first half of 1939—an increase of 19 per cent. Combined manufacturing, selling and commercial expense was approximately 10 per cent greater during the period than in the first half of 1939.

Imports of Cotton and Waste Under U. S. Quota Listed

Washington, D. C.—Preliminary adjusted reports showing imports of cotton and cotton waste chargeable to the import quotas established by proclamation of the President on September 6, 1939, and for the period September 20, 1939, to August 17, 1940, inclusive, were made known by the Bureau of Customs, as follows:

Cotton other than harsh or rough cotton, staple length under 1⅛ inches: From Egypt and the Anglo-Egyptian Sudan, 80 pounds; Peru, 56,908 pounds; British India, 1,012,968 pounds; Mexico, 3,520,803 pounds; Brazil, 303,059 pounds; Argentina, 2,315 pounds; Netherlands East Indies, 8,967 pounds. Total, 4,905,100.

Staple length 1⅛ inches or more: From Egypt and the Anglo-Egyptian Sudan, 29,668,300 pounds; Peru, 452,386 pounds; Brazil, 3,808; Haiti, 30 pounds; Barbados, 12,554 pounds. Total, 30,137,078 pounds.

Cotton card strips, comber waste, lap waste, sliver waste, and roving waste, whether or not manufactured or otherwise advanced in value: From the United Kingdom, 3,322,017 pounds; Canada, 239,690 pounds; France, 9255 pounds; British India, 69,627 pounds; Cuba, 6,544 pounds. Total, 3,647,133 pounds.

Cotton Promotion Fund Pact Said To Cover 90% Of Crop

Memphis, Tenn.—With the announcement by the American Cotton Shippers' Association that merchants and cotton mills handling 90 per cent of the cotton crop have signed agreements with the National Cotton Council, the Council's plan for collection of the greatest promotional fund in the history of the raw cotton industry is now effective from the Carolinas to California.

"The decks are cleared for action in the most far-reaching battle in the history of the industry," declared Oscar Johnston, president of the Cotton Council. "We are at the beginning of the first major campaign of a total war against substitute, surplus and foreign competition."

Under the finance plan the producer is enabled to make his 5-cent-a-bale contribution at the first point of sale to the cotton merchant or ginner or warehouseman acting as merchant. This contribution is carried from merchant to compressor, who remits the accumulated fund to the council, or from merchant to textile mill, which remits on uncompressed cotton.

The 3-cent-a-ton contribution on seed made by ginner and crusher is similarly assembled and remitted to the council by the oil mills.

The American Cotton Shippers' Association headquarters office at Memphis has advised the council that its regional units and board of directors had made a final check on sign-ups submitted by the council and determined that in excess of 90 per cent of the bales, on a basis of the 1939 crop, had been signed up.

"With the 100 per cent allegiance of the cotton producer to the cause, with new and greater funds at our disposal, we shall be equipped to continue the long, hard struggle to regain lost markets at home and abroad through advertising, a constructive foreign trade program and scientific research," Mr. Johnston stated.

Pepperell Mfg. Co. Nets $1,121,505

Boston, Mass.—Pepperell Mfg. Co., in its annual report for the year ended June 30, 1940, shows net sales of $29,343,709. Net profit for the fiscal year, after all charges including depreciation, amounted to $1,121,505, which is 3.82 per cent of sales and is equal to $11.50 a share on the outstanding capital stock. This compares with net sales of $28,490,548 in the preceding fiscal year and net profit of $871,432, which was 3.06 per cent of sales and equal to $8.96 a share of capital stock.

New Construction for Piques, When For Sanforizing

The fourth in the series of the proposals to reconstruct standard gray goods construction, has just been issued by Sanforized-Shrunk, a division of Cluett, Peabody & Co. This proposal refers to piques. As in the previous instances, the suggestion will reach the trade in elaborate form, in an attractive board folder, with red cover, containing the title, "Prize Pique Performance."

As is known, the purpose of this series has been to present reconstructions of standard fabrics, to be used when intended for sanforizing. After study and experimentation, it has been found that, through these reconstructions, it is possible to obtain full widths that make for most economical cutting. Also, the nature of the cloth itself is retained after sanforizing, when the reconstruction is used. Each time, Cluett, Peabody & Co. has impressed that the reconstructions can be produced at the same cost as the old standard cloth.

Regarding the piques, it is stated:

"It has been the practice to weave piques 36 inches to 38 inches wide depending on the construction and to finish them, held out to approximately 35¾ inches unshrunk. Since fabrics thus finished shrink materially when washed, they are not fully serviceable when made into garments. Sanforizing such fabrics to the Sanforized-shrunk standard of ¾ to 1 per cent residual shrinkage, requires that they be shrunk in width to approximately 34½ inches and quite often to 33½ inches.

"But cutters are accustomed to laying out their patterns on 35-36-inch goods for economical cutting and the loss of the inch or more in width means the use of additional yardage per dozen garments . . . an increased cost that cannot always be absorbed or overcome.

"The most obvious solution would be to weave the same construction wider in the gray. But naturally, that would mean increased poundage and therefore increased cost of gray goods to get a Sanforized-shrunk, full finished width for the cutter.

"The answer has been found in the reconstructions presented here. By slightly shifting the count and weaving the gray goods 39½ inches wide, the finished and Sanforized-shrunk carded piques are approximately the same in width, count and weight as the old constructions in 'commercial finish.'"

The board folder contains three sets of swatches illustrating the new reconstructions in comparison with the old standards. There is the fine count pique, in which the old style was 38-inch, 116x84, 3.25 yard, and the reconstructed is 39½-inch, 112x82, 3.25 yard; . . . the medium count pique, of which the old was 37-inch, 104x72, 3.80,

and the reconstructed is 39½inch, 97x68, 3.80 yard; . . . and the low count pique of 36-inch, 92x64, 4.40 yard, for which the reconstruction is 39½-inch, 84x60, 4.40 yard.

Reconstruction of three of the popular carded piques have been produced and finished without sizing for your critical examination. There is a slight variation in different finishes, but average results of the first runs of these fabrics are as follows:

	Width Inches	Count	Weight Yard
116x84 Old Standard			
Old Gray	38	116x84	3.25
Old Finished (not Sanforized shrunk)	35¾	123x81	4.00
New Gray	39½	112x82	3.25
New Finished (Sanforized shrunk)	35½	124x82	3.85
104x72 Old Standard			
Old Gray	37	104x72	3.80
Old Finished (not Sanforized shrunk)	35¾	108x69	4.70
New Gray	39½	97x68	3.80
New Finished (Sanforized shrunk)	35½	109x70	4.45
92x64 Old Standard			
Old Gray	36	92x64	4.40
Old Finished (not Sanforized shrunk)	35¾	93x61	5.35
New Gray	39½	84x60	4.40
New Finished (Sanforized shrunk)	35⅞	94x62	5.20

Those now having the series of four board folders with the reconstructed gray cloths illustrated, have an interesting library. The first of the series was entitled: "Print Cloths Go Modern," and referred to the 68x72 and the 80 square print cloths . . . The second was called: "A Matter of Sheer Width," reconstructing the 88x80, lawns . . . and the third had the designation: "Sheer, Wide and Handsome," telling the story of the dimity fabrics.

Laundries Study Spun Rayon Goods

Joliet, Ill.—Lopsided pants are only one of the textile consumer troubles which have caused manufacturers and the nation's laundries to get together on a plan to "iron out the wrinkles" of new products in advance of sale.

The lopsided pants problem is but one difficulty faced by men who prefer those sports ensembles made of spun rayon—unless they can manage the entire season without laundering being necessary.

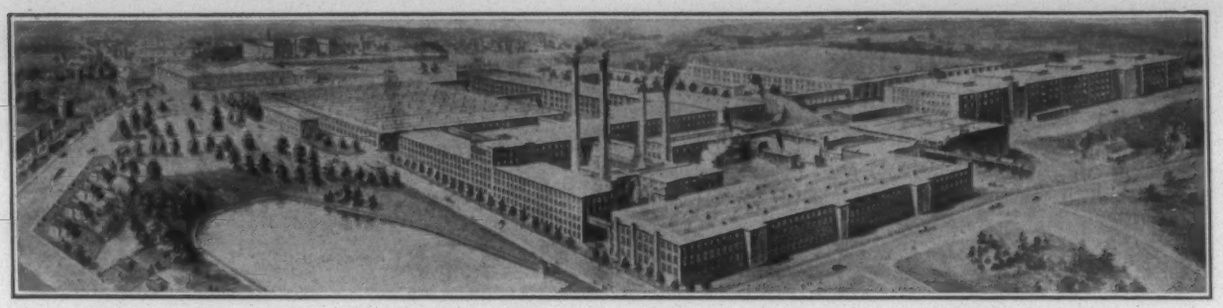
Warning its members against accepting sportswear of spun rayon except "on the customer's responsibility," the American Institute of Laundering here has set forth the spun rayon laundering problems. The Institute asserts:

"The present rayon and mixed fiber sportswear now on the market is unpredictable from a standpoint of color fastness, shrinkage, and distortion control."

As if that weren't enough, the Institute continued: "Many of them will exhibit at least one or more of the following characteristics under the best of reconditioning methods: In a matched shirt and pants ensemble the two articles are apt to show two different shades after laundering; serious chafe marks or migratory color evidence will occur; serious color loss will be evident; shrinkage may be both excessive and unequal; distortion can easily occur even with most careful handling."

As a direct result of the situation brought about by the "unlaunderability and unpredictability" of the spun rayon, the Institute now is working very closely with textile manufacturers in order to avoid such problems in the future.

The Institute's research scientists, under this program, put all newly developed textiles through scientific laboratory tests in advance of their public offering with research findings pointing the way to changes in manufacturing techniques.



Visiting the Mills

Intimate Glimpses of Activities in Southern Textile Plants and the Men Who Own and Operate Them.

By Mrs. Ethel Thomas Dabbs (Aunt Becky)

BUFFALO, S. C.

Union-Buffalo Mills Co.—Buffalo Plant

This is a large mill, having 62,880 spindles and over 2,000 looms. The product is sheetings. President F. W. Symmes, Secretary J. S. Fullager and Purchasing Agent Hext M. Perry are all residents of Greenville, S. C., and are also officers of the other two Union-Buffalo Mills, one at Union and the other at Fairmont.

J. D. Jones is general superintendent of all three plants. N. Winroth is superintendent of the Union and Buffalo plants, and L. B. Gibson is superintendent at Fairmont.

Buffalo is the largest of these mills; is a really nice plant, and adding new equipment to make it absolutely modern.

Superintendent Winroth is an Englishman and came here just after the World War. It is interesting to hear him tell of the sacrifices and hardships made and endured, and how he and his wife started from the bottom and worked up through obstacles that some would think impossible to overcome.

Mr. Winroth is deeply interested in his employees, and encourages them to improve their talents. There are a number of young men here who will go far in the textile business—some who are already competent to fill better positions, and Mr. Winroth will be as elated as they are when promotions come, or when they find better positions elsewhere.

A. M. Smith is overseer carding; C. B. Crock and L. E. Smith, second hands.

R. D. Scarboro is overseer spinning; F. S. Bolton, second hand, will make a good overseer for some mill. There are probably others whom I did not meet.

J. S. Tidwell is the live-wire overseer weaving; W. H. Pruitt, E. T. Ford, J. T. Bright and Roy Martin, second hands. Please take note of the big list of loom fixers who take The Textile Bulletin. They are: Horace Grogan, Neil Hamrick, Harry G. Salley, W. F. Vinson, Arthur F. O'Shields, D. W. Jenkins, Carl Elliott, Hugh Kingmore, Clyde Gowan, Edgar T. Wright, A. L. Anthony, Fields Hamrick, Lloyd Maness and Warren Lawson. Overseer Tidwell has our sincere thanks for hearty co-operation.

M. E. Israel is overseer the cloth room, and one of the most loyal subscribers to our textile journal. He never fails to speak a good word for us. J. E. Land is master mechanic, but we could not locate him.

In the office, Mrs. Dupree and Messrs. Strahley and Farr are a jolly trio and we enjoy calling on them.

UNION, S. C.

Union Mills Co.—Union Plant

This is where "Aunt Becky" and "Uncle Jeems" learned to weave more than 40 years ago. The difference in conditions then and now makes an interesting story. Hours were from 12 up. If we lost ten minutes time for a broken belt or whatever, we had to "make up" 30 minutes.

Overseers were "dictatorial" and "bossy" to an unbelievable degree—something that don't go now. After working 12 hours a day (and making up enough over to get out on Saturday at 4 o'clock) operatives would then have to clean up the machinery on their own time; the second hand or overseer would then inspect the machines and would often make operatives do it all over—especially if the operatives were not in the good graces of second hands.

I've seen weavers docked more than they made in a day for a very small defect in cloth—when the overseer did not like the weaver. Aunt Becky, in all her 15 years as a weaver, was never up for bad cloth of her own.

Old Union Mill had hand-threading shuttles those days and new "green horn" learners were told that to make a good weaver, at least a yard of thread had to be swallowed; they often believed it, and performed the feat, to the accompaniment of shrieks of laughter from the "pioneers." Why they were called "hand" threading, when we had to suck the thread through, is a puzzle.

The village houses were all alike and unnumbered; it was hard to find our house. There are plenty of people around Union who know that my mother hung a red shawl on the front porch as a marker for us! Landrum Bobo moved it to his house one day and we followed that old shawl and sailed in for dinner. What a laugh they had on us!

We got water from wells in the center of the street. One well served several families on each side. Housewives would meet at the well to wash turnip greens and gossip. Our lights were kerosene lamps. There were no paved sidewalks, but plenty of mud and slush. Outside toilets.

There was no village recreation. We manufactured our own fun and I do believe we enjoyed life better than most people do today, when everything is "handed them on a silver platter."

I always enjoy going to the Old Union Mill, which has been greatly enlarged since my first acquaintance with it, and improved in every way till it is hard to realize how everything was 40 or more years ago.

Some of the best textile men in the South got their early training the hard way at old Union Cotton Mill and are holding responsible positions.

I did not get to meet all the key men here, but hope to catch up with them next time.

Among those who take our paper are: J. J. Green, overseer carding; J. C. Patterson, in picker room; John Cody, overseer spinning; John Lybrand and Will Gregory, second hands in spinning; Cleve Brooks, Jim Mitchell and R. M. Mitchell, section men in spinning; Fred S. Miller, second hand in spooling; Walter Surret, overhauler; Roy L. Griggs, second hand in weaving, and Legrand Fowler, loom fixer.

The City Proper

Union is one of the prettiest little towns in the State; has nice business buildings and good business, for there are several cotton mills and knitting mills here with a large annual payroll. There's a White Way, and at night the place is remarkably beautiful with the fine electric display.

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Manager and Vice-President A. C. Lineberger, Jr., Superintendent C. C. Fisher and the assistant superintendent, J. C. Mattox, make a trio hard to beat.

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Southern Sources of Supply

For Equipment, Parts Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

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ASHWORTH BROS., Inc., Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S. W., Atlanta, Ga.; Texas Rep., Textile Supply Co., Dallas, Tex.

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Visiting the Mills

(*Continued from Page 49*)

Burl Jones and Jurl Jones, twin brothers, are overseers of preparation; E. L. McSwain, overseer weaving; R. L. Norris, overseer cloth room, where so many pretty girls in uniform are employed.

Other key men are: R. J. Dellinger, J. G. Morrow, R. F. Grissom and L. A. McAlister.

A Live Boy Scout Troop

John Carter, scoutmaster, is doing a fine work with the boys. A scout cabin has been built for them and they are justly proud of a place to call their own in which to meet. The boys had a vacation in Tryon Scout Camp during June which they appreciated and enjoyed.

CALHOUN FALLS, S. C.

Calhoun Mills

This is a splendid link in the Gossett chain of mills and a really pretty spot. The officials are President and Treasurer B. B. Gossett, of Charlotte; Vice-President S. H. Lander, of Anderson, S. C.; Secretary and Assistant Treasurer E. M. Lander, and Superintendent T. G. Gray, Assistant Superintendent Charlie Varner.

There are 42,000 spindles and 1,379 looms; the product is wide print cloths.

Overseers are: J. A. Cooper, carding; T. L. Cheatham, spinning; Thomas Shaw, spooling; J. M. Payne, weaving; M. S. Chastain, cloth room; T. M. Rilep, master mechanic.

Being a Gossett mill, it goes without saying that this is a well equipped plant, and that the operatives are among the best.

There is a lot of improvements going on in the town and mill community. One can hardly go anywhere and fail to see numerous buildings and road work going on.

Calhoun Falls has long been noted for friendly people and good citizenship. The cotton mill is largely responsible for the town's progress.

Gain in Domestic Cotton Use Seen

Washington, D. C.—The Agriculture Department said recently domestic cotton mill consumption was expected to contnue exceptionally large during the next few months.

Even with record consumption, however, the department added, restricted exports may reduce domestic disappearance of cotton to a level much below average.

Exports of raw cotton, the Department said, are likely to be the smallest since the Civil War if Great Britain is able to maintain its blockade of continental Europe.

Present prospects for domestic consumption and exports indicate an increase in the domestic carryover at the end of the current season, but the Department said it should remain materially below the record carryover of August 1, 1939.

Last season the carryover was reduced nearly 2,500,000 bales.

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FOR WASHABLE
FABRICS AND
PRINT GROUNDS

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are a complete color range of dyestuffs for after-treatment with formaldehyde. They are dischargeable and have better than average fastness to washing. Benzoforms are suitable for the dyeing of rayon and cotton in all stages of manufacture and in all types of machines. The method of application is simple and inexpensive. For quality and economy use BENZOFORMS.

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